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MOTHER AND CHILD:

PRACTICAL HINTS ON NURSING, THE MANAGEMENT OF CHILDREN AND THE TREATMENT OF THE BREAST.

BY

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LATE SURGEON TO THE READING DISPENSARY.

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Practical Hints

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PREFACE.

At the present period, when so many efforts are being made to improve the sanitary condition of the people—to mitigate the social evils, and to raise the moral and intellectual status of society, the subject of infant management possesses a peculiar interest, and ought to claim special attention.

The importance of properly managing the child is twofold—the well-being of the child during the tender years of infancy, and the influence which that child will exert in its relationships through life, hence the amount of responsibility resting upon the mother, nurse, or guardian.

In the following remarks the Author is aware that he is reproducing the statements and opinions of others; but truths we have been long accustomed to assume a different form when viewed from a different aspect, and close observation, with some original facts gleaned from a professional experience of thirty years, have induced the writer to "cast his bread upon the waters," trusting that here and there a grain may be picked up, and prove useful to the inexperienced mother; though not alone to the parent is the subject interesting and important. The due performance

of the maternal duties has a very considerable influence on the community at large, and cannot fail to be of vital interest in a social, moral, and religious point of view.

Though the principles advocated, so far as regards the management of early childhood, may be advantageously adopted by all who have the care of children, yet the main object of the work has been to give clear and concise directions to the mother at the period of nursing—to point out the great influence she possesses over her offspring during infancy, and the vast importance of subsequent hygienic and moral training, the results of which may be stereotyped upon the child long after he has arrived at maturity; it may be to the end of his days.

160, Friar Street, Reading.

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MOTHER AND CHILD.

CHAPTER I.

ON MATERNAL NURSING.

It was beneficently ordered by the Creator that the child for a certain period after birth should be dependent on the maternal nourishment for its support, as the offshoot deriving sustenance and growth from the parent stem. How wise a provision! how endearing the relationship, and how are the sympathies of parent and child drawn forth in the act of nursing! How beautiful to witness the tender, helpless, confiding babe, nestling in its mother's bosom, reciprocating maternal love,—ay, and reminding woman of her responsibilities: that little being has an immortal soul which must be first moulded and impressed by the mother's teachings.

The Duty of the Mother to Nurse her own Infant.

Happily it does not often happen that the mother is incapable of nursing her child, and the obstacles which apparently exist, may very frequently, by timely interference and proper management, be obviated. There is, however, occasionally a want of perseverance on the part of the young mother, as well as the attendants, to overcome the little difficulties which sometimes attend the first giving the

child the breast. Now, making every allowance for any physical inaptitude which may possibly occur, it is the bounden duty of every woman to nurse her own child; and the mother who, through indolence or carelessness, neglects to perform this duty, incurs a vast amount of responsibility, deprives herself of a sweet privilege, and robs her infant of that nourishment which God designed for its special use and support.

In countries less civilized than our own, it is rare indeed that the mother does not suckle her own child, and nothing but some bodily ailment, or physical inability would prevent her doing so; and should the educated and refined be less careful and loving of their offspring than the barbarous and ignorant? As a proof to what extent the feelings and affections influence the secretion and flow of the milk, I will quote an extract from Dr. Livingstone,* who during his travels in the interior of Africa, had ample opportunities of closely observing the manners and customs of the natives. He says, "The Bechuanas are universally much attached to children. I have seen several cases in which a grandmother has taken upon herself to suckle a grandchild. Masina of Kuruman had no children after the birth of her daughter Sina, and had no milk after Sina was weaned, an event which usually is deferred till the child is two or three years old. Sina married when she was seventeen or eighteen, and had twins; Masina, after at least fifteen years' interval since she last suckled a child, took possession of one of them, applied it to her breast, and milk flowed, so that she was able to nurse the child entirely. Masina was at this time at least forty years of age. I have witnessed several other cases analogous to this. A grandmother of forty, or even less, for they become

* "Livingstone's Travels in Africa," page 126.

withered at an early age, when left at home with a young child, applies it to her own shrivelled breast, and milk soon follows."

The simple habits of these and other uncivilized races will account for the ease with which they pass through the process of parturition and suckling, compared with the civilized and refined European. Unfortunately for us, high mental culture, and the excessive competition existing in the present day in every branch of intellectual science, are too often associated with impairment of the physical strength; and when we take into account the follies and extravagancies of fashionable life, in dress, heated apartments, and luxurious articles of food; and when on the other hand we look at the condition of the poorer classes—the insufficient food and want of cleanliness, the overcrowded dwellings, the immorality, and the intemperance, so often prevalent amongst them, there is quite sufficient to account for the degeneracy of our bodily strength.

Let us hope, however, that a greater attention to the laws of hygiene, the inquiries made into our educational system, and the sanitary movements so extensively carried out in the present day, and to which my fair readers have so willingly and cheerfully given their aid; let us hope, I would repeat, that these sanitary efforts, in which many estimable men in high position, and philanthropic members of the profession have taken an active part, may bring about a better state of things, and improve the condition of our people both morally and physically.

Advantages derivable from Suckling.

So obvious are the advantages of nursing to both mother and child, that it seems almost unnecessary

to refer to them. Nature dictates, and every reflecting person will admit that there is no food so perfectly adapted to the digestive organs of the infant as the mother's milk; and that child will thrive best who is the most carefully watched, the most tenderly loved, and the best supplied with nourishment from the maternal source.

The advantages derivable to the mother also are equally important. During lactation the constitution undergoes a considerable change, the blood is thrown into new channels, and while the function of one important organ is arrested, others are brought into greater activity. Usually the digestive organs become strengthened, the appetite improves, and the general health is promoted. Some women, indeed, who have been previously considered delicate, become stronger, gain flesh, and acquire an improved general appearance while performing the office of nurse. Another advantage is the suspension of the monthly discharge, and the diminished liability to pregnancy, the too frequent occurrence of which in some constitutions is likely to weaken the system and deteriorate the general health.

It has also been remarked that when there is any tendency to constitutional or hereditary disease in the system, there will be less probability of its manifestation while nursing, and that the mother at this period acquires a calmness of mind and a serenity and cheerfulness of countenance, heightened no doubt by the pleasing consciousness that she is performing one of the sweetest duties that can devolve upon woman.

Evil Consequences arising from the Neglect of Suckling.

The mother who refuses to suckle her own child *without* an adequate reason, not only runs the risk

of doing her infant harm, but also of injuring materially her own constitution. Artificial feeding is but a poor substitute for the mother's milk, and if a wet-nurse be had recourse to, there cannot be the same sympathy existing between nurse and child, nor the same adaptation or suitability of the nutriment afforded, as there would be in the case of the mother who suckles her own child.

There is a probability too of the child's affections being weaned from the parent source. We little understand the workings and sympathies of the infant mind, and to what extent during infancy the mental faculties are influenced and impressed by external objects and associations.

Another evil arising from the employment of a wet-nurse, is the injury inflicted on the hired nurse's child, and we must admit that a great share of responsibility rests on the members of the medical profession in reference to this important matter. I cannot refrain here from transcribing some extremely appropriate remarks on the subject, though addressed to medical men.* "The practice of employing wet-nurses can but be considered an evil, and one which is destined doubtless to increase in the ratio of our increase in wealth and luxury. What is the remedy? We should endeavour to remove the causes of the evil by inducing mothers to rear their own children by the means that nature has given them. The arguments which may be employed are too strong to be resisted if kindly, conscientiously, and firmly presented by the medical attendant. If this duty were thoroughly discharged in every instance, the system of wet-nursing would at once fall into disrepute. In the comparatively few cases where the mother is

* "American Medical Times," March, 1861.

absolutely disqualified, it is still a question if artificial lactation, in the hands of a competent nurse, might not be preferable to wet-nursing. But admitting that the wet-nurse must be obtained, the physician is still the adviser, and has it in his power to make the selection. And here occurs an important duty which is almost invariably overlooked—if the wet-nurse has a child of her own, it is liable to be put aside without a care, or even thought, on the part of the employer. The physician should remember that in providing a nurse for his patient, he is not less responsible for the life of the helpless human being which is set aside, and should insist that it be properly provided for."

The mother who refuses to suckle her infant must also expect to suffer from some of the evil consequences of suppressed secretion of the milk. She will be liable to inflammation and abscess of the breast; or the blood intended for the nourishment of the child, being thrown upon other organs, congestion of the liver, or the womb, or determination to the head, may be the result.

On the Diet and General Management of the Nursing Mother.

So much is the secretion of the milk affected by the health of the mother, that she cannot be too scrupulously careful in the management of herself, not alone for her own comfort and convenience, but for the ease and well-doing of her child.

Not merely do peculiarities of diet, but the mental emotions also, exert a considerable influence on the lacteal secretion. It has been elsewhere remarked, that during suckling the appetite very often improves, and that those who were previously fastidious

in their choice of food, and delicate at the stomach, are at this period enabled to take much more nourishment. An increase of appetite must not, however, induce the mother to take food of too rich or stimulating a nature, lest the quality of the milk be impaired.

It is well known that the country nurse, who lives on the plainest fare, and in the simplest manner, has seldom any difficulty in suckling, and the children of the labouring classes, fed entirely on breast milk, present some of the finest specimens of babyhood. I feel assured that if a "baby show" were instituted in this country, the rural nurse would, in many instances, carry away the prize from the more affluent matron of town or city. A plain, nutritious, and unstimulating diet is therefore best for the nursing mother, and any articles of food which have previously disagreed with her should now more particularly be avoided. The usual hygienic rules also should be carefully attended to:—regular exercise must be taken in the open air; late hours avoided; the bed-room should be well ventilated, bed-curtains thrown aside, and the daily use of the sponge-bath persisted in.

Any severe mental disturbance, as fear, anger, or surprise, will produce an injurious effect on the milk. Fatigue will also influence the secretion, and the mother who has suffered from any excitement of mind or fatigue of body should refrain for a time from giving the child the breast. It is most important that the mother maintain a cheerful and tranquil state of mind while performing the office of nurse.

From my previous remarks it will be inferred that I am not an advocate for the use of stimulants, and experience fully bears me out in the opinion that the

majority of women will suckle best upon a diet consisting of a moderate allowance of meat, articles of a farinaceous kind, eggs, tea, coffee or cocoa, with an ample supply of milk, and the exclusion of malt liquor, wine, and spirits. In the exceptional cases, where the mother has been habitually weak, a little bitter ale or stout may assist the digestive organs.

There are some delicate women who while suckling derive very great benefit from change of air. If residing inland, the change should be to the seaside, and *vice versâ*. Sea-bathing, by its invigorating effects on some constitutions, will do more than any other plan which can be adopted. Of course the season of the year must be taken into account, and also the locality; in these the patient must be guided by the opinion of the family attendant.

Medicines.

As medicines are known to affect the milk, we must be careful in their selection. When an aperient is required, either castor oil, a few grains of the compound rhubarb pill, or a teaspoonful of Gregory's powder, will suit very well. When constipation of the bowels is associated with inactive liver, small doses of podophyllin, combined with ginger and rhubarb, will prove serviceable.

Saline aperients should be avoided, as through their effects on the milk they disturb and annoy the child. It is in fact better to abstain as far as possible from taking medicines while suckling, unless they are advised professionally.

Rules for giving the Breast.

It is most important that from the very commencement of suckling regularity be observed as far as

practicable in giving the child the breast. A proper plan of nursing adopted from the beginning will conduce greatly to the comfort of both parent and child, as well as materially influence the child's future health.

Not alone does the quality, but the mode of administering the nutriment in the early months have a wonderful effect on the constitution; and as education is said to "begin with the cradle," so the seeds of the future constitution and growth are sown during the first months of infantile existence. Observation proves that the majority of children come into the world healthy. Let me not be understood to assert that the mode of management altogether determines the future condition of the infant; we know that the constitutional tendencies of the parents, and hereditary influences, to a certain extent, fix the type of their offspring, both mentally and bodily; but when we observe the vast amount of difference existing between the properly managed, well-nurtured infant, and the poor neglected little creature, ill-cared for, and badly nourished, the attention is directed strongly to the fact, and the medical man, who from the nature of his vocation is more particularly cognizant of this state of things, is bound to acknowledge that very many of the diseases to which infancy is liable are induced by ignorance, carelessness, or absolute neglect on the part of the parent or nurse, and might by a careful, systematic, and conscientious discharge of the maternal duties be prevented.

Should the child require any nourishment before the mother is able to afford the necessary supply, a teaspoonful or two of warm milk and water, in about equal proportions, and sweetened with a little sugar, may be given from time to time. The child's stomach is not strong enough at this time to digest vegetable

food, and therefore gruel or arrowroot are likely to produce flatulency and uneasiness. Usually the child has not much appetite until the dark motions are expelled; in fact, nature has provided a supply of nutriment from the mother previous to the infant's birth, laid up in store in the small intestines, and very little extraneous food will be necessary for the first day or two;* the thin watery milk of the breast, or a similar substitute will amply suffice.

During the first few weeks the child will take but little nourishment at a time, but requires that little often. The infant should be put to the breast about every two or three hours; but at the end of the month the intervals should be prolonged, and once in three or four hours will usually be sufficient.

The inexperienced mother is apt, whenever the child cries, to put it to the breast; this may seem natural enough, but the crying of a child does not always indicate hunger, but sometimes the reverse: an overloaded stomach may be the cause of the uneasiness, and the attempts of the mother to give relief by the repeated application of the infant to the breast only increase the amount of suffering. If, then, regularity be observed in the periods of nursing, and if there be an ample supply of milk, some other cause must be sought for the child's uneasiness than mere hunger, and some other remedy must be applied.

With regard to the management at night, if the weather be not cold, it is advisable to put the child to sleep in a bassinette close to the mother's side of the bed, and to give the breast the last thing before retiring to rest, and then again early in the morning.

* By the experiment of Dr. Robert Lee, it would appear that above the situation of the meconium a quantity of highly nutritious *albumen* is found in the intestines, serving for the sustenance of *the infant till lactation is* established.

This will allow the mother a pretty good share of repose; there are few who can bear the fatigue of having the child on their arm, or even by their side, the whole night.

If the mother be healthy and well provided with milk, there will be no need of giving any other nourishment during the first six months. About this period the first teeth begin to make their appearance, although in the case of delicate children the process may be delayed to a much longer period, even to twelve or fifteen months. When the teeth do not show themselves at the usual period, it may be suspected that the milk is deficient of the proper nutritive qualities, and food in some form or other must be given to the child.

Sometimes, from the commencement of nursing, the milk is poor and thin, and the infant does not seem satisfied after taking the breast. When, from either of these circumstances, it is found necessary to give artificial nourishment, that kind should be selected resembling most nearly in its qualities the mother's milk. The best substitute is the milk of the ass or goat; but where these are not procurable, cow's milk diluted with one-third of boiled water, and sweetened with a little white sugar, must be given.

There is a notion entertained by many persons that two milks disagree, and that an infant while taking the breast should not be fed by milk from any other source; now I am convinced that in the majority of cases such an objection is groundless. Many infants will thrive remarkably well upon the plan just referred to. The supplementary milk should be given two or three times a day through a feeding-bottle, and once in the night if necessary. Care must be taken that the milk be given at a proper temperature, and in suitable quantity. A

child under six months of age ought not to take more than three or four ounces of milk at a time.

Should the child be troubled with flatulency or griping pains, and the motions become discoloured or watery, some alteration must be made in the nourishment; a small proportion of oswego or arrowroot must be added to the milk. Baked flour will also sometimes prove a good substitute, or the crumb of a new loaf may be picked out with a fork, put into an oven and baked to dryness, then boiled an hour in water, and afterwards milk and a little sugar added. When milk in any form disagrees with the child, chicken or beef-tea may be substituted with advantage; but there are cases in which it will be found impossible to adhere above a week or two to any one kind of diet; frequent changes must be made. If, notwithstanding all that has been done, the child does not go on satisfactorily, the question of weaning must be considered; but before deciding this matter the opinion of the medical attendant should be taken, as some remedial measures may perhaps be suggested to correct the disordered state of the bowels and render weaning unnecessary.

As a general rule the mother should suckle her child from nine to twelve months; but this must entirely depend on the strength and constitution of the parent, as well as the health and condition of the child. There are some women who cannot nurse their children longer than six months.

Excessive Flow of Milk.

Inconvenience sometimes arises from an over-secretion and flow of the milk, which pours out so freely that the infant when put to the breast cannot swallow *the draught, the mouth* fills, producing cough and

almost choking; and between the times of nursing the milk, by constantly dribbling away, becomes not only a source of annoyance, but has a most prejudicial effect on the mother's health, occasioning among other symptoms a dragging sensation in the back, a failing appetite, and loss of strength.

Undue lactation may occur at any period of suckling, and arises from relaxation of the milk tubes and their orifices, as well as from a want of tone in the system generally.

Among the causes of this condition are keeping the breasts too warm, taking too little exercise, living in a warm and moist atmosphere, and taking too much fluid nourishment; in fact any habits of living which tend to enervate and diminish the vigour of the system.

Treatment.—The treatment must be both local and constitutional: it will be necessary to keep the breasts cool, and sometimes to apply evaporating or astringent lotions. Spirits of wine or brandy, one part, combined with dilute acetic acid, two parts, may be applied occasionally on soft linen rag or lint; or the nipples may be washed at night and morning with an infusion of green tea, to which a little alum or sulphate of zinc may be added. Belladonna applied locally is sometimes of service.

Nipple glasses should be worn to protect the dress, these must not, however, be used if they draw the breast. To protect the dress, several folds of linen should be placed in contact with the bosom, and changed frequently, and as an additional protection, oil silk may be used if necessary.

Mineral acids are of service internally. A very good combination is the infusion of roses and dilute sulphuric acid, or the infusion of cascarilla with dilute nitric acid. Aperients should be taken occa-

sionally, and the diet somewhat restricted. Fluids should be taken sparingly, particularly tea, soups, and malt liquors, and the food should consist of the drier articles. Every means must be adopted by attention to the general health, to strengthen and give tone to the system.

In similar cases I have seen great benefit arise from a course of steel: it probably has a twofold action, diminishing the secretion of milk, and also giving tone to the lacteal vessels.

Iodide of potash, in small repeated doses, has the effect of diminishing the secretion and flow of the milk. Belladonna and colchicum also are sometimes given to effect a similar object. Before such remedies are resorted to the medical attendant should be consulted. I have known steel when persisted in too long, cause the dispersion of the milk altogether.

Case 1.—A young married lady, six weeks after her first confinement, became pale and anæmic, and complained of failing strength. She had hitherto been able to give her baby a moderate supply of milk. Steel was prescribed, and taken during three or four weeks; this medicine had often been serviceable to the patient, and proved equally so on this occasion; but as the roses returned to her cheek, the supply of milk gradually ceased, and much to the regret of herself and her relations, the weaning of the infant was rendered absolutely imperative.

Case 2.—A married lady who had suckled her fifth child nearly four months, suffered from oversecretion of the milk. Her dress became saturated day and night with the excessive flow, and she experienced much inconvenience and annoyance. Other symptoms began to show themselves, as a dragging in the back, loss of appetite and failure of *strength.* Steel was prescribed, and in the course of

a week the secretion of milk had so rapidly diminished, as to cause alarm lest it might cease altogether. A mineral acid was then substituted, with the effect of moderating the supply and relieving the mind of the patient.

The preparation used in each of these cases was the ammoniated citrate of iron, in combination with the tincture of calumba.

Deficiency of Milk and Means of Increasing the Supply.

It occurs sometimes that the mother has not a sufficient supply of milk to satisfy the demands of her child. The breasts are soon emptied, and the child, unable to obtain the draught, becomes uneasy and distressed. The mother while suckling experiences a dragging sensation in the chest and back, and afterwards a feeling of oppression and sinking at the pit of the stomach. These symptoms will be followed by loss of appetite, constitutional irritation and weakness, lowness of spirits and restlessness at night.

A deficiency of milk may arise from two opposite states of the system: a plethoric or full habit of body; an anæmic or weak state of the constitution. The former condition will occur usually in females who, naturally robust and stout upon a moderate diet, readily make blood; also in those who, partaking of too rich and stimulating a diet, induce an inflammatory state of constitution. Such nurses are liable to congestion of the glandular structure of the breast, also obstruction of the milk tubes and their orifices, and in consequence, the child's efforts to obtain a sufficient supply are unsuccessful.

The anæmic or feeble state of system giving rise

to deficiency, occurs usually from over-exertion, late hours, bodily fatigue or mental anxiety, living in an unhealthy atmosphere, insufficient nourishment, debilitating discharges, as diarrhœa or leucorrhœa, sometimes the monthly discharge will show itself while nursing, and interfere with lactation.

Treatment.—The treatment to be adopted for those of a plethoric or inflammatory habit, must have reference more particularly to the diet and local management of the breast. Meat should be taken sparingly; fish, vegetables, fruits, and farinaceous food should constitute the principal articles of diet. Stimulants should be entirely avoided; regular exercise should be taken in the open air, the tepid sponge bath used daily, and saline aperients occasionally had recourse to.

When the breasts are swollen and indurated, they must have hot chamomile fomentations applied three or four times a day, and afterwards warm olive oil must be freely rubbed into them with the hand.

In the anæmic state of the system all those means must be adopted which are found usually to strengthen and invigorate the system. A good nutritious diet, with the addition in some cases of a little bitter ale or porter if desired; the avoidance of fatigue and late hours; in fact the greatest regularity should be observed in the daily habits of life, the hours of taking meals, retiring to rest, and rising in the morning. Walking or carriage exercise should be daily resorted to in the open air whenever the weather permits, and must be regulated by the strength of the patient.

When the weakened condition of system and consequent deficiency of milk appear to be dependent on some local or constitutional affection, then the medical attendant will prescribe remedies, or recommend a plan of treatment especially applicable to the case.

The mineral acids, mild vegetable bitters, and steel are often exceedingly serviceable to females of the class referred to; and sometimes a few weeks' residence at the sea-side, conjoined with sea-bathing, will enable the mother of delicate constitution to become a tolerably good and efficient nurse.

Another cause of insufficient supply of milk is the state of the nipples merely, which are sometimes flattened, indented, or excoriated. For the mode of treatment in such cases I must refer the reader to a subsequent chapter. Before leaving this subject, I would make a remark or two in reference to substances which are said to promote the secretion of milk. They may be separated into two classes—animal and vegetable. Belonging to the former are beef-tea, milk, good nutritious soups, and especially those made of the whiting and conger-eel; comprised in the latter, ordinary tea, fennel seed in powder or infusion, well-boiled carrots, the oil and leaves of the castor-oil plant, tonquin beans, and vanilla used to flavour puddings and custards.

With regard to some of these, I cannot speak from my own experience. Others are familiarly known to most persons. Every nurse understands the value of a good cup of tea to the nursing-mother. Strong beef-tea and soups also are generally known to promote the secretion of milk.

The leaves of the castor-oil plant have only recently been introduced into this country, though known and made use of in South America a century and a half ago. The breasts are bathed with a decoction made by well boiling an ounce of the castor-oil leaves in four pints of water. A portion of the boiled leaves are spread over the breast between the intervals of bathing.

Dr. Tyler Smith, a physician distinguished alike for his urbanity of manners and high professional

must be done to divert, solace, and afford her encouragement.

The effects of undue or protracted suckling, as before remarked, are not alone mischievous to the mother, but also to the child. The infant, though plump and healthy-looking when born, soon loses flesh, becomes fretful, suffers from diarrhœa and colicky pains, and if not supplied with suitable nourishment from some other source must ultimately pine away.

Weaning.

The period at which weaning the child should take place must depend on various circumstances. If the mother and child are both healthy, I would say at from nine to twelve months; a great deal must depend on the progress the child has made with regard to teething. Usually the first teeth show themselves at the sixth month, but sometimes, without any apparent cause they are delayed to a much later period. The caprices of nature are somewhat peculiar in this respect. I have occasionally met with instances in which newly-born infants have had one or two incisor teeth already visible. These precociously-developed teeth usually, however, decay early.

It would seem that where the process of teething is retarded, that there must be a deficiency of the phosphates, or bone-making materials in the mother's milk, and although I would not advise weaning on this account, yet there must be such choice of supplementary food as would be suitable under the circumstances. A little good beef-tea, made perfectly plain, should be given twice a day, or occasionally a small proportion of some light farinaceous pudding containing eggs substituted.

When the mother is out of health, and the milk

poor, thin, and innutritious, it will be necessary to wean the child at a very early period; or should the existence of pregnancy be ascertained during suckling, the child ought most decidedly to be taken from the breast.

Modes of drying up the Milk.

The necessity for the dispersion of the milk may occur at an early or late period, and it is important to be made acquainted with the plans most usually adopted, and most likely to be successful.

When, owing to deficient or flattened nipple, or some constitutional defect in the mother—when from the death of the child, or any other sufficient reason, it has been deemed advisable not to suckle; I have found it an excellent plan to apply, a few hours after delivery, a large diachylon plaster over each breast. The plasters should be spread on wash-leather, or soft sheep-skin, of sufficient dimensions to completely envelope the breasts, and an aperture cut for the nipple. A brisk purgative of castor-oil, or rhubarb, or black draught, should be given every third morning: fluids should be taken sparingly. If the breasts are uneasy, they should be rubbed frequently with the hand over the plaster, and on no account should the breasts be drawn, as this would encourage the draught to come in.

When there is an objection to the use of plasters, then as soon as the breasts begin to feel at all tumid and uncomfortable, which will usually happen about the third day after delivery, they should be freely rubbed with a liniment composed of soap and camphor liniments in equal proportions. The liniment, previously warmed, should be applied perseveringly with the hand at least three or four times a day;

the breasts should be protected with flannel or wadding.

When at a later period of suckling it is found necessary "to backen" or dry up the milk, this must if possible be done gradually. The diet should be restricted, and aperient medicine taken every second or third day. An excellent local application for the dispersion of the milk, is the spirit of camphor sprinkled on sheet wadding: the bosom should be completely enveloped in this material for a longer or shorter period, according to circumstances; a day or two will sometimes be sufficient. About a teaspoonful of the camphorated spirit should be sprinkled on the wadding twice a day.

It sometimes happens that the dispersion of the milk is extremely difficult to effect. Dr. Fountain, an American physician, has found in cases of this description, that the extract of belladonna and glycerine in equal proportions, freely rubbed over the breast, and the part afterwards covered with oil-silk, has succeeded better than any other plan. This remedy ought not to be used without the sanction of the medical attendant.

When the breasts are relaxed, and there is a feeble state of constitution, a compress applied to the bosom, and the administration of steel, either alone or in combination with quinine, will sometimes effect the desired object.

Circumstances which Disqualify a Mother for Nursing.

Although as a general rule I would strongly recommend every woman to suckle her own children, yet there are undoubtedly some exceptional cases. Females of extremely feeble constitution, and broken *health, are* incapable of nursing, and must of neces-

sity resign the office, however painful and self-denying it may be to them. It must be admitted, however, that there are some women of extremely delicate constitution, who by judicious management, and due attention to all the laws which regulate health, are enabled to perform this duty.

Mothers of a phthisical or strumous constitution ought not to suckle. There is a popular notion that the child of a consumptive mother draws away the disease from its parent; it may happen that owing to the change which the mother's system undergoes during the process of lactation, the phthisical symptoms are arrested, but only to recur again with increased intensity, while the consequences to the child will be discomfort, sickness, and premature decay.

The extremely nervous and excitable female ought not to suckle. The milk is so soon changed in its character by the emotions of the mind, as fear, anger, or other strong passions, that the effects upon the child are in some cases most disastrous. Dr. Andrew Combe remarks: "We know how speedily the other secretions in the mother are affected by mental emotion, and it would be very extraordinary if that of the milk did not also suffer. The immediate influence of fear upon the urinary and intestinal secretions, and the instantaneous parching of the mouth and the suppression of the saliva from sudden excitement or great anxiety, are examples familiar to all; and when these functions are so directly disturbed by mental causes, it is not likely, even reasoning from analogy, that the very important secretion from the breast should alone continue in peaceful regularity. Hence a passionate temper, or great excitability of mind, ought to be regarded as a complete disqualification in a nurse."

The mother who seeks her own pleasure, who cannot give up the habits of fashionable life and devote herself thoroughly to her maternal duties, had better not attempt to nurse. Late hours, over-exercise, and irregularities in diet, all tend to deteriorate the milk, both as to quantity and quality, and it would be far better that the careless or indifferent mother should employ a trustworthy person to bring her child up by hand, or consign her offspring to the charge of a careful wet-nurse, than allow it to fall a sacrifice to her own imprudence and mismanagement.

CHAPTER II.

ON WET-NURSING.

It has been previously remarked that the cases are comparatively rare in which the mother is not able to suckle her own child; but when a sufficient reason exists for her declining to do so, there is another very important point to determine—namely, whether the child shall be "wet-nursed," as it is termed, or brought up "by hand." Now there are so many matters to be taken into consideration, and so much must depend on the individual circumstances of the case, that it is impossible to give any specific directions which can be made available for general guidance. There are some delicate children who will sicken and absolutely pine away unless they are properly suckled, whereas others, of a robust and healthy constitution, will thrive equally well on an artificial diet.

When any doubt exists in the mind of the mother as to the right course to pursue, it will be better to consult the medical attendant, and upon his judgment reliance should be placed. Supposing a wet-nurse has been decided upon, what are the principal requirements to be considered in her selection? We will proceed to discuss this question.

The Selection of a Wet-nurse.

For many and obvious reasons the choice of a wet-nurse demands particular care and discrimination: her moral character and disposition, age, time of de-

livery, constitution, her breasts and quality of milk, must be severally considered. Some general rules also will be suggested with regard to her diet and management of health; another matter of considerable importance is whether a single or married woman is preferable.

The Moral Character and Disposition

of the nurse are of the utmost importance. She is to be the mother's substitute for many months, and we know how readily the young infant receives its early impressions—the look, voice, gesture, all exercise an influence on the child, even at this tender age.

A nurse should be cheerful and obliging in her manners, neat and cleanly in her person, steady and temperate in her habits,—she should be a moral and religious person. Excitability of disposition, inattention to truth, or any other moral defect, are strong objections to her selection. A violent burst of passion has been known so to change the character of the milk as to cause the speedy death of the child; and a bad or irritable temper, or any neglect or mismanagement, will produce effects as disastrous perhaps, though more slowly and insidiously, without the cause even being detected. I would therefore strongly advise every mother, before she consigns her infant to the charge of any woman who undertakes so delicate and responsible an office, to make herself intimately acquainted, if possible, with her habits and disposition. If circumstances do not admit of this, the medical attendant, or some intimate friend, should be in a position to supply the required information.

Age of the Nurse.

It is natural to suppose that the age of the nurse should approximate as nearly as possible to that of

the mother, and generally this would be a correct rule to follow; but supposing the mother to be very young, it would be unwise to choose a nurse equally young and inexperienced; and again, if the mother have given birth to her infant at a very late period, it would be inexpedient to make choice of a nurse correspondingly circumstanced as to age. From twenty to thirty is the most suitable age for a wet-nurse: her sympathies are fresher, her constitution more vigorous, and her spirits more elastic than at a later period of life.

Time of Delivery.

It is desirable also that the delivery of the wet-nurse should correspond very nearly as to time with that of the mother; because the quality of the milk becomes altered by age. The stomach of a newly-born infant would not be able to digest the milk of a woman who had been delivered three or four months, nor would the thin, watery milk of a nurse who had been recently confined suit a child three or four months old. There must be an adaptation of nutriment to the digestive organs, or the infant will suffer: diarrhœa, colic, and various diseases of the digestive organs will be likely to ensue.

External Appearance and Constitution.

The health and constitution of the nurse demand particular inquiry, and it is sometimes difficult to arrive at any satisfactory conclusion with regard to her fitness to undertake the office; outward appearances are not always to be depended on, and although the selection of the nurse is usually confided to the medical attendant, yet as this is not always practicable, it is well that the mother should be made acquainted with the appearances usually indicative of a

healthy constitution, and which ought principally to guide her in the choice of a nurse. A clear complexion, skin free from eruption, bright eyes and sound eyelids, smooth and deep rose-coloured lips, sound and well-formed teeth; the breasts plump and well-developed, the nipples perfect and of medium size; these are some of the requirements. Whether a brunette or blonde is not so important, in my opinion, as some authors insist on.

It will be proper also to inquire into the state of her constitution. Are the digestive organs healthy? Is she ever unwell whilst nursing? Some nurses recommend themselves on the plea that as they continue to be unwell while nursing, their milk at each monthly period is renewed, and rendered fit for much younger children than would otherwise have been the case. Now this is an erroneous notion; such an occurrence deteriorates the milk, and the results are soon apparent: the infant becomes uneasy and fretful, brings up the milk, and has frequent watery motions of a dark-green colour.

It occasionally happens that the renewal of the monthly discharge in the nurse takes place at some subsequent period. The infant becomes thin and weakly, and every three or four weeks suffers from diarrhœa and griping of the bowels. When the true cause has been ascertained, it will be necessary as soon as possible to change the wet-nurse.

The Breasts and Milk.

The breasts should be well formed, moderately plump, also free from lumps or scars, the nipples not too large, free from roughness, cracks, or excoriations, and the quality of the milk should be ascertained.

Healthy milk is of a thin consistence, a bluish-white colour, and somewhat sweet to the taste. When

allowed to stand, the quantity of cream thrown upon its surface varies according to the diet, period of nursing, and other circumstances. Dropped into water, it should exhibit a cloudy appearance, and not fall at once to the bottom in large globules. The condition of the nurse's child is almost a sufficient test: if this be plump, active, cheerful looking, and the skin free from eruptions, we may form a favourable opinion.

Diet and Management of Health.

As in the case of the mother, so with the wet-nurse, the diet should be regulated. Good plain nourishing food, with a due admixture of animal and vegetable nutriment, is the best adapted for keeping up the supply of milk. The addition of malt liquor is not necessary, unless the nurse have been accustomed to its use, and then should be taken sparingly. The nurse is sometimes allowed, under a notion that it will increase the flow of milk, to eat and drink very much more than is necessary: the digestive organs are thus put out of order, febrile symptoms are apt to arise, and the milk, instead of being increased in quantity, will probably be diminished, and very much deteriorated in quality.

Should the nurse be taken into the family, there will be greater facilities for observing and regulating her habits. It will be advisable to give her some daily occupation. She should rise early, take frequent exercise in the open air, and use the sponge bath every morning: personal cleanliness is of the greatest importance in the nurse, and its necessity should be strongly insisted on.

Abuse of Medicines.

There is another important point we must not omit to notice: the very objectionable habit of giving

medicines indiscriminately to the young infant. The wet-nurse should be strictly forbidden to administer any medicine of her own accord. The greatest injury is inflicted on young children by the various soothing and sedative medicines sometimes clandestinely introduced into the nursery, under the plea of composing and quieting them. The fact is, that these medicines often mask or disguise the nature of the malady; or they so disturb and disorder the digestive organs, that if persisted in they sometimes convert a mere trifling affection into real and incurable disease.

Some nurses are in the habit also of using cordials in the nursery, under the harmless names of aniseed, peppermint, &c.; these medicated liqueurs all contain a considerable amount of spirit, and are highly injurious when mixed with the infant's daily food. Who can say that the practice of giving cordials to children in the nursery may not engender a habit which in after years will develope itself in dram-drinking?

Should the nurse have her rest disturbed at night, which will occasionally happen when the child is teething, or from other causes, it is better to give her an opportunity of lying down in the day, and every occasion should be sought to contribute to her comfort as far as possible; the mother cannot prize too highly a trustworthy and efficient nurse.

Single or Married.

It is rarely that we have an opportunity of choosing between the married and single nurse; the force of circumstances often decides the question for us. A few remarks on the peculiar merits of each, as well as the disadvantages connected with the one *or the other, will* here be deemed advisable.

The single woman who offers herself as a wet-nurse has fewer ties, and can more conveniently become an inmate of your establishment and conform to the regulations, of a family, than one who is married, and who has probably other children. The very circumstances, however, which have placed a single woman in the unfortunate position of a mother ought to have due weight, and should induce us to inquire more particularly into her antecedents; her character and conduct should be most carefully searched into. Then, again, if her own child be living it should be ascertained that this be not carelessly thrown aside, but placed under the charge of some careful and conscientious person. It is lamentable to reflect in how many instances the child of the wet-nurse is allowed to pine away, not alone from mismanagement, but too often from gross and cruel neglect.

A respectable married woman who has lost her own infant, and can conveniently come into your house for a few months, or who would be willing to take the entire charge of a nurse-child under her own roof, is in many respects preferable to the single wet-nurse.

The married nurse, accustomed to the care of her own children, understands better the handling and general management of the nursling; and what is also important, she does not do violence to her maternal feelings by thrusting her own infant aside. It often happens in the lower classes that the mother has such an abundance of milk as to be able to support almost entirely two children at the breast; at all events, she can do so very well by partially feeding them.

CHAPTER III.

ON BRINGING CHILDREN UP "BY HAND."

When from weakness of constitution, defective nipples, or any other cause, the mother is altogether unable to nurse her infant, and when a wet-nurse cannot be obtained, it will be necessary to resort to artificial feeding, or bring up the child "by hand."

Delicate children, and those prematurely born, seldom survive unless they can have the breast; but strong, healthy children, under proper management, can be brought up very well on artificial food. The greatest care and the most unremitting attention will, however, be necessary in effecting this object. It is no easy task to rear a child by the hand; and whenever possible the mother herself should superintend the management, and see that her directions are most carefully and regularly attended to.

When it has been determined to bring up a child by hand, we have to consider what will be the best substitute for the mother's milk, the temperature at which the food should be given, the mode in which to be administered, and we must decide upon the quantity and frequency of giving the nutriment.

The kind of Food.

It is well for us that nature has clearly indicated the kind of nourishment suited to the child in the early months. The helpless state of the infant, its

feeble digestive organs, its natural instincts, and the absence of teeth, all point out milk as best suited to nourish the young infant.

Milk

combines in its composition numerous ingredients; for instance, butter, sugar, casein or cheese, some neutral salts and water; and upon the proportion in which these exist depend the nutritious and assimilative qualities of the milk. Dr. Prout has styled milk "the type of perfect food." It would be impossible to produce artificially an analogous compound. We must, then, in the absence of the breast supply, have recourse to a substitute resembling as nearly as possible the maternal food. This we find in the milk of some of the mammalia, as the cow, the ass, the ewe, and the goat.

The milk of the ass or cow is most frequently made use of in this country. Goat's milk is extensively used on the Continent, in India, and other parts of Asia; and at the present time, both in England and Ireland, the goat affords considerable aid in the rearing of children.

Ass's milk contains more sugar than human milk, and does not require to be sweetened. It should be diluted at first with an equal proportion of water that has been previously boiled; in a few days one-third only of water should be added, and at the end of the month the milk should be given undiluted.

Goat's milk is rich in cream, and also contains a considerable amount of phosphate of lime. It requires dilution in the same proportion as cow's milk, and suits some delicate children remarkably well.

Cow's milk contains a larger proportion of cream and cheese, and a less proportion of sugar, than

human milk. It must be diluted for the first few days with two-thirds of boiled water, and slightly sweetened with white sugar. Afterwards one-half water should be added, and at the end of five or six months the milk should be given pure.

The Qualities and Composition of Cow's Milk.

As cow's milk is so apt to be adulterated, particularly in large cities, it will be important to ascertain, if possible, the source from which it is derived, and the milk should occasionally be tested as to its specific gravity and the quantity of cream which it contains

Healthy milk is rather heavier than water, and has a specific gravity of about 1·030. "The following may be taken as its average composition:

Casein	3·74
Butter	4·43
Milk-sugar	4·83
Water	86·43
Saline matter	0·57
	100·00

"The richness of milk is derived from the butter, the sweetness from its sugar, its consistency from the cream, its refreshing quality as a beverage from the water, and its peculiar flavour from its saline constituents."*

There is a very useful little instrument named a lactometer, constructed for the purpose of testing the quality of milk, and it may be used with advantage in the nursery.

* Muspratt's "Chemistry," p. 895.

The Lactometer

is designed to show the relative proportion of cream to the milk. It is a glass tube, five or six inches long, fixed on a stand, and divided by a graduated scale into one hundred parts. The milk to be tested must be poured into the tube, and then set aside in a moderately cool place, for about ten hours in summer and fifteen in winter. The cream will then have risen to the surface, and its amount will be indicated by the figures on the tube. In pure milk the proportion of cream is usually about eight per cent.

It need scarcely be remarked that the health of the child will be materially influenced by the quality of the milk. Great stress has been laid on the importance of feeding the child from one cow: where this is practicable, no doubt it will be advantageous to do so; and when the parents are fortunate enough to have cows in their possession the plan can easily be managed; the majority of persons, however, are not so circumstanced, and they must put up with the chances of having milk that has been mixed, or that has been procured from different cows of the same dairy. This is one of the little difficulties which I cannot but think has been over-estimated.

Those who have the charge of rearing children should keep a vigilant eye on the supply brought to them from day to day, and see that the usual characteristics of fresh wholesome milk are present.

It has been noticed of late that children have suffered a good deal from troublesome eruptions, and among other causes, the consumption of unwholesome milk may have a large share in their production. Calves have been known to die speedily after being fed upon milk supplied by diseased cows. I do not

here allude to the "Cattle Plague," but to an aphthous eruption affecting the mouth and feet of the animal, and termed the "foot and mouth disease."

Hints on Milking the Cow.

A remark or two here may be useful to those who are supplied with milk from their own dairy: for the following I am also indebted to Muspratt's valuable work:—"The quality of the milk is greatly influenced by the quantity of the yield and the nature of the food given to the animal. The amount depends very much on the method of milking, as a cow roughly handled will withhold a portion of her milk, when, were she gently treated, she would allow it to be taken freely. It is of some importance that the last drop should be withdrawn, for although the statement that the last half-pint is richer in cream than the whole milking besides, is not fully to be credited, yet, to a certain extent, it is true; besides, were any milk left it might coagulate and injure the udder as well as lessen the subsequent meals of milk.

"The richest and best tasted in winter, is that from cows fed upon mangold wurtzel and oil-cake."

The temperature at which the milk is given, should be as nearly as possible the same as that from the breast—viz., about 96°.

During the first month, the child will require to be fed every two hours; at first the quantity given must be small, about two or three tablespoonfuls at a time, and this must be gradually increased. At the end of four or five weeks, the food may be given about every three hours, though some children require nourishment more frequently than others.

When children fed upon a milk diet are troubled with acidity of stomach, a condition which may be

known by the sour state of the motions, as well as the matters thrown up from the stomach, one-third of lime-water added to the milk, will oftentimes act as a corrective, and afford relief.

Sugar of Milk.

By dissolving sugar of milk in boiling water, and adding to this a certain proportion of cow's milk, we obtain a composition resembling human milk; the following is the formula:—One ounce of sugar of milk to be dissolved in three-quarters of a pint of boiling water, and mixed with an equal quantity of good fresh cow's milk. The infant to be fed with this from the feeding-bottle in the usual way. With regard to the utility of this composition as a substitute for the mother's breast milk, I cannot speak very highly from my own experience.

Farinaceous Food.

There are some children who will not thrive upon milk alone, and it will be necessary to combine with it boiled bread, baked flour, arrowroot, oswego, biscuit-powder, or some other like farinaceous substance. A small proportion of one of these, well boiled, should be used to thicken the milk to the consistence of thin gruel.

Oswego, or Indian Cornflour,

suits some children remarkably well; it may be prepared in the same manner as arrowroot or baked flour. Mix gradually a dessertspoonful with a small quantity of cold water in a basin with a spoon; add by degrees half a pint of boiling water, constantly stirring; then boil for a few minutes, add

about one-fourth of new milk, and sweeten with white sugar.

When milk, in any form, is found to disagree, causing white and curdy evacuations, flatulency, and various other inconveniences, a very good substitute is the *crême de pain*, as it is termed.

Crême de Pain

is made by infusing in water, for three or four hours, the crumb of a new loaf cut into slices, and baked to dryness in the oven, then boiled for a couple of hours longer, adding water from time to time to make it of the proper consistence. It should then be strained through a piece of muslin and sweetened with white sugar. The French add a few drops of orange-flower water.

When children are troubled with flatulency, it is a very good plan to tie up a few caraway-seeds in a piece of muslin, and allow them to be boiled for a few minutes in the food.

Baron Liebig's Soup for Children.

The distinguished philanthropist and chemist, Baron Liebig, has not thought it detracting from his high scientific attainments to direct his attention to the diet of infants, and in the "Popular Science Review"* has given directions for the preparation of a food now extensively used in Berlin; the following is the formula:—"Half an ounce of wheaten flour, and an equal quantity of malt flour, seven grains and a quarter of bicarbonate of potash, and one ounce of water, are to be well mixed; five ounces of cow's milk are then to be added, and the whole put on a

* *No. XIV., January*, 1865. R. Hardwicke, Piccadilly.

gentle fire; when the mixture begins to thicken, it is removed from the fire, stirred during five minutes, heated and stirred again till it becomes quite fluid, and finally made to boil. After the separation of the bran by a sieve, it is ready for use. By boiling it for a few minutes it loses all taste of the flour."

Baron Liebig was induced to make this soup for the benefit of one of his grandchildren who could not be suckled by its mother; and another, who required besides the breast milk a more nourishing and concentrated food. In these cases and in many other instances the soup answered extremely well. The children thrived, and many little ailments disappeared after the use of the diet had been persisted in for a few weeks.

Biscuit Powder.

After trying a multiplicity of preparations, I have found that well-prepared biscuit powder has suited some delicate children better than any other kind of food. That prepared by Messrs. Huntley and Palmer is extremely light and nutritious, and highly beneficial in the cases referred to.

Animal Broths.

When children are healthy and strong they require no other food during the first six months than milk, or a combination of milk with farinaceous substances. There are, however, many children of delicate constitution who require some admixture of animal food at a very early period. Beef-tea, mutton or chicken broth, may then be advantageously substituted for the milk, two or three times a day.

As beef-tea requires care in making, and is very often improperly prepared, a hint or two on the sub-

ject may be considered useful; the following is an excellent recipe:—Take one pound of beef; cut into small bits, put it into an earthen jar, and pour over it a pint of cold water; cover the jar with a saucer, and let it stand on the hob, at a little distance from the fire, for four hours, then gently simmer it up to the boiling point. After straining let it stand by to cool, and then take off any fat which may be floating on the top, add a small quantity of salt, and it will be ready for use.

Mutton broth may be made in the same manner. Beef-tea is exceedingly useful to pale, flabby children, with a feeble circulation. Infants of this class require food that is easily digested, and of a somewhat stimulating character. The probabilities are that, with delicate children, the diet will have to be frequently changed; the digestive organs are sometimes so weak and deranged, that assimilation of the food does not take place; the child gets thin and emaciated, and the greatest care of the nurse and skill of the medical attendant are called into requisition. When, in such cases, the child is unable to retain the food, and the matters rejected by the stomach, as well as the evacuations passed by the bowels, are characterized by acidity, we had better for a time suspend the food, and give merely milk in small quantities, mixed with one third part of lime water. This will act as a corrective of the secretions, and give the digestive organs rest until they can bear stronger food. Beef-tea, and the farinaceous articles of food, given alternately, is a plan sometimes adopted with advantage.

Mode of Giving the Food.

There are two modes of giving the food—by the spoon, and feeding-bottle. Children will readily take

liquids from the spoon; but the mere process of swallowing does not bring into action the various muscles employed in suction. Sucking stimulates the respiratory as well as digestive functions, and is more like taking the mother's breast. The slow introduction of food into the child's stomach also, is attended with advantage, and better suited to the digestive organs at this period.

The Feeding-bottle

is therefore very much to be preferred to the spoon. The usual nursing bottle is a flattened oval, with a narrow neck, and mouth-piece shaped like a nipple; to this is attached a calf's teat, or artificial nipple, made usually of India-rubber. The nipple should be pierced by two or three holes, and a small piece of sponge placed within it. Care must be taken to keep the bottle perfectly clean, or it will become sour and taint the food, and thus prove injurious to the child: the bottle should be scalded out after each time of using, and the sponge well washed with warm water. When a calf's teat is employed, it should be removed from the bottle after every meal, and placed in a little spirits of wine. The greatest care must be taken that every thing connected with the feeding-bottle be kept fresh and clean.

The best kind of feeding-bottle I am acquainted with is O'Connell's Patent Siphonia. It consists of a flat glass bottle, with a teat or nipple, and a flexible tube connecting the nipple with a glass tube or syphon which is within the bottle, and running nearly to the bottom, and through which the food is drawn to the mouth. A thin wire with brush attached, for cleaning out the teat and tube, is sold with the apparatus.

The child should be fed in a semi-reclining position,

the head a little raised and supported on the nurse's arm: afterwards put into its cot, or allowed to rest quietly on the knees of the nurse for some time. It is highly improper to toss and jump the child about after it has taken its food; nothing disturbs the process of digestion more than active exercise after a full meal; we are aware of this from our own experience, and we observe that animals after taking their food instantly seek repose.

It has been elsewhere remarked that during the first week or two the newly-born infant spends its time chiefly in eating and sleeping. It requires food very frequently, though but little at a time; two or three tablespoonfuls will be sufficient at first, and this quantity must be given about every two hours. When the child is three or four weeks old, it need be fed only about every three hours; the intervals of giving food may be gradually prolonged till, at the end of the third month, every four hours will be sufficiently often to give nourishment.

In rearing children by hand, much judgment and very much patience are required: the nurse should study the disposition, she should read in look and gesture the little wants of her tender charge. Who that has the care of young children, that has narrowly watched and tended them in sickness and health, does not understand something of the language God has given them—"the language of signs?"

Effects of Over-feeding.

A most injurious habit is that of over-feeding the child. Whenever an infant cries, the inexperienced nurse is apt to suppose that hunger is the cause of distress, and more food is given with a view of satisfying the child. Now, as a general rule, whenever a

child cries shortly after taking a meal, there must be some other cause than hunger; either the bowels are uncomfortable from flatulency, or the clothes are too tight, or a pin pricks, or some offending cause of this kind exists, requiring removal: to give more food will only add to the child's discomfort and distress.

The evils of over-feeding are so obvious as scarcely to require any comment; among the more immediate effects are—indigestion, flatulency, colicky pains of the bowels, while the after results are still more serious and alarming. The fat, over-fed child is likely to suffer from the effects of teething, and will pass through the usual infantile diseases with considerable difficulty. Excess of food does not, however, always fatten the child, but may have a contrary effect, inducing irritability of the mucous membrane of the stomach and bowels; the intestinal glands become inflamed, and mesenteric disease, with diarrhœa, struma, and marasmus or wasting, are the results.

Food given during Teething.

The term teething applies to the coming of the first set, or milk-teeth: children usually begin to cut their teeth at the age of six months, and the process occupies from a year and a half to two years. The diet need not be materially altered during the first three or four months of their appearance; by degrees, however, some more substantial kind of food may be substituted, and the various farinaceous articles before referred to may be given in combination with the milk. At the end of twelve months it will be advisable to give tops-and-bottoms, rusks, or infants' biscuits: these are prepared in a somewhat similar manner. A portion sufficient for the child's meal must be steeped in boiling water in a covered

vessel for a quarter of an hour, afterwards rubbed down smooth in a basin with a dessert-spoon, then a little milk added, and the whole strained through a fine sieve.

Infants' biscuits suit some children exceedingly well, but they are too sweet for others, and induce acidity.

When the side or grinding-teeth appear, the food should be composed of the most simple and delicate substances of the family diet. Occasionally a little gravy from the joint may be given, mixed with bread crumbs; or beef-tea, chicken or mutton broth: the light puddings also, as sago, tapioca, ground rice, and oswego. Changing the food from time to time is often serviceable, and sometimes absolutely necessary.

There is another mode of giving milk to be here noticed. Two or three onions are to be quartered, put into milk, lightly boiled, and strained for use. Sir Charles Locock has frequently recommended this diet, and with some children it answers extremely well; in the Royal nursery it has been largely used.

It must be remembered that during teething the constitution undergoes important changes, and that some delicate children, particularly those with largely-developed brains, suffer greatly from nervous irritation. Children of this class require more than ordinary care in the administration of their food: they must have nothing highly-flavoured or stimulating, their meals must be given most regularly as to quantity and quality, and all the hygienic regulations must be most carefully attended to.

CHAPTER IV.

ON THE MANAGEMENT OF THE BREASTS.

Preliminary Remarks.

With regard to the management of the breasts while nursing, we often hear a great diversity, and sometimes contrariety, of opinion, and no one plan of treatment laid down can be alike strictly applicable to all cases. Much must depend on whether it be a first or subsequent confinement, also the strength and constitution of the mother, and her inherent aptitude for affording the natural supply of nourishment to her offspring.

Unfortunately it often happens that the nurse, who usually takes upon herself the sole management of the breasts, adopts some peculiar plan of her own, and resorts to some favourite nostrum, which she brings indiscriminately to her aid on every occasion, and very frequently the medical man is not consulted till after much mischief has been effected, and the patient has endured considerable pain and suffering.

After a first birth the secretion of the milk is usually more tardy than in a subsequent confinement; the lacteal or milk-ducts are more or less impervious, and the first efforts of the child to obtain the draught being sometimes attended with difficulty, has given rise to the term made use of by nurses, "breaking the nipple strings," a saying which I need scarcely remark is erroneous: the milk secreted in the glan-

dular apparatus of the breast is conveyed merely to the nipples by the lacteal vessels or tubes. Now, it is a remarkable fact that milk has been found in the female breast at all periods, from infancy to advanced age; but at the period of child-bearing the glands are called into activity, lactation commences, and the supply of milk becomes more or less abundant.

When to apply the Child to the Breast.

With regard to the question, When is the child to be put to the breast? Nature dictates that the infant should be applied to the mother's bosom almost immediately, or as early as possible, after birth. If we take for example the brute creation, the young of most animals with whose habits we are at all acquainted, are observed to seize upon the mother's breast immediately they come into the world. This is a strong argument, it will be said, for following Nature's instinct, and would be so, doubtless, if in all other respects we followed her directions; but the artificial habits of society have a tendency more or less to interfere with the performance of this most natural and pleasing duty of the mother to suckle her offspring.

In a first confinement the secretion of milk seldom takes place for two or three days; the breasts then become swollen, somewhat hard, and usually more or less tender. This condition is sometimes accompanied by slight feverishness and headache; such symptoms, however, under proper management, seldom last more than twenty-four hours. There is no doubt that the early application of the infant will materially tend to keep the bosom in a comfortable state, and that any unnecessary delay in effecting this object will oftentimes put the mother to considerable pain and inconvenience.

When the mother's strength is sufficiently recruited the child should be applied, we would say, as a general rule, within five or six hours of her delivery; there may be no signs of milk, but the action of sucking will encourage its secretion, draw out the nipples, and save the mother much after-suffering. There is another advantage in the early application of the child to the breast, the first milk, termed also colostrum, has an aperient quality, and acts on the infant's bowels.

Retracted Nipples.

Should there be retracted or flattened nipples, with a tense and swollen state of the breasts, it will he useless to persist in applying the child, the constant application of the child's mouth under such circumstances would render the nipples tender and liable to crack, and also occasion much pain and suffering to the mother.

Treatment.—Measures must then be adopted to soften and reduce the swelling of the breasts, and means must be taken to render the nipples accessible to the child. Frictions with warm olive or almond oil will be found very serviceable. The nurse should apply freely with her hand the oil, or some mild liniment, three or four times a day; the nipples should be drawn out by the aid of the breast-pump, and the child at once applied before the retraction again takes place. If, however, this plan does not succeed, and the breasts become more swollen, tender, and lumpy, fomentations of hot water should be freely applied. A very efficacious and successful mode of treating the breasts when in this condition, is by placing on them hot wooden bowls, with an intervening layer of flannel. The bowls should be first boiled in water for a couple of hours, then care-

fully secured, and covered over with three or four thicknesses of flannel: the bowls should be kept on the bosom two hours at a time. By this means it is astonishing how soon the hardness and tenseness of the glands become diminished.

When an opportunity offers, it is advisable to get a friend's child of three or four months old to draw out the nipples, or a woman who has been accustomed to perform this office. Many of the monthly-nurses are capable of drawing the breasts, and, in fact, all should render themselves competent to do so when required.

Sore Nipples.

One of the inconveniences to which nursing women are liable, and more frequently during the lying-in month than at any other period of suckling, is sore nipples. They become hot and irritable; the skin then becomes broken, or peels off; and at length excoriations, cracks, or fissures form at the base or apex of one or both nipples, proving extremely painful. When the child takes the breast, the suffering of the mother is indescribable, and that which should constitute her greatest delight is anticipated with pain and disappointment.

Such a state of the nipples may often be traced to the sad and injurious habit of tight lacing: a custom which I fear some females still persist in. Sore nipples are also occasioned from a neglect of their treatment during pregnancy: and another cause is the contact of the child's mouth when suffering from thrush.

Treatment.—The means employed for the cure of sore nipples during suckling, must have reference to their precise local condition. It will be quite impossible that any one remedy can be equally applicable

in all cases, or that the same remedy can be persisted in throughout the cure; on the contrary, it will often happen that a frequent change of treatment will be found necessary before this very painful affection can be removed. The modes of treatment in the several stages of the disorder found most successful in my own experience, I shall proceed to describe.

Inflammation of the Nipples.

When the nipples are hot, and slightly tender and irritable, a piece of soft linen rag wetted simply with tepid water or spirit lotion should be applied to the part; two or three thicknesses of rag should be employed, and wetted frequently. When the heat and tenderness of the nipples have abated, the following will be found a very serviceable application:— Tannin, 10 grains; glycerine and rose water, of each 2 drachms; to be applied three or four times a day.

Simple Abrasion.

In cases of simple abrasion, and where from peeling of the skin the nipple assumes a whitish appearance, a condition oftentimes caused from an aphthous state of the child's mouth, I have seen great benefit arise from painting the nipple over, three or four times a day, with a liniment composed of equal parts of tincture of catechu and mucilage of gum acacia, sometimes adding to these a small proportion of powdered borax.

Ulceration with slight Fissure.

A liniment, composed of lime water and almond oil, of each two parts; mucilage of gum acacia, three parts; and tincture of balsam, one part, will prove a

good application in cases of ulceration with fissure. I have used this compound for many years with considerable success. The mucilage of acacia and the lime water must be well shaken together, afterwards the almond oil, and lastly the tincture of balsam.

Deep Fissure.

The edges of a deep fissure should be pressed together, and painted with collodion, and the child should not be allowed to take the breast for a day or two; in the meantime the bosom should be rubbed by the hand with warm olive oil three or four times a day, to prevent coagulation of the milk and tumidity of the breasts.

The use of ointments, or greasy applications of any kind, rarely effects any good in the treatment of sore nipples during suckling, and the local application of caustic I do not approve of, having seen inflammation and abscess of the breast result from using this remedy.

Shields.

In all cases of excoriation or fissure of the nipple, shields should be worn, or the newly-formed skin will soon be broken again by the action of suckling. The more simple in construction the better are these contrivances adapted for the purpose. Glass or metal shields feel cool and more agreeable to the patient than those manufactured of other materials. A calf's teat, or artificial nipple, should be attached to the shield for the purpose of suckling, great care being taken that the teat be properly fitted to the mother's nipple, or the child's efforts to draw the milk will be attended with difficulty, and probably complete

failure, to the great disappointment and distress of both mother and infant.

Messrs. Maw and Son have constructed a most ingenious little apparatus, consisting of a glass shield with an elastic tube and nipple, which answers extremely well. The shield completely protects the mother's nipple, and the artificial nipple being attached at the end of the elastic tube, may be squeezed and handled by the infant without causing the slightest pain or inconvenience to the mother.

Before leaving this subject, I would strongly urge on those who have suffered from sore nipples, the necessity in any subsequent pregnancy of preparing them for nursing.

During the last four months of pregnancy the nipples should be bathed at night and morning with a weak solution of alum, or with a strong infusion of green tea, to which a little brandy may be added, and afterwards exposing them for a short time to the air. Should the nipples be unusually dry and harsh, and disposed to crack, which is not often the case at this period, they should be painted well over with glycerine night and morning with a camel's-hair pencil. Great care should be taken that the dress does not unduly press upon the bosom, so as to produce indentation of the nipples; should there be any congenital flattening or retraction, they should be drawn out occasionally with the thumb and finger.

Milk-fever.

The first secretion of the milk is sometimes attended with so marked a feverish condition of the system generally, as to have received the name of milk-fever. The lacteal tubes become greatly distended by the milk which flows into them, causing

tension, hardness, and weight; the breasts become more or less red, and so tender, that the patient is unwilling to have them touched. Irritation is set up in the system, giving rise to a certain amount of fever; there will be a chill, followed by a feverish attack, and terminating in a copious perspiration.

A condition of this kind may run a natural course and terminate favourably in about twenty-four hours; or, in a woman of delicate constitution, some latent disease may be excited into activity, so that milk-fever must not always be considered so trifling a thing as might at first be supposed.

Treatment.—A brisk aperient should be given in the first instance, and afterwards a little saline medicine. It is most important also that the milk be drawn from the breast; and if pain and inconvenience be experienced from the weight and tension of the bosom, it must be supported by a carefully-adjusted bandage or handkerchief.

Inflammation of the Breast.

Though inflammation of the breast may occur at any period during nursing, it more usually shows itself during the lying-in month, and this need not be a matter of surprise, considering the change in function and consequent new condition of the parts. A more copious supply of blood and greater activity in the secretory apparatus of the glands are required for the formation of milk, hence there is a greater susceptibility to external impressions.

Among the causes which give rise to inflammation of the breast, may be mentioned over-distension of the gland from milk, the application of cold, and irritation arising from sore nipples.

It has been previously remarked that the breasts

sometimes become exceedingly distended upon the first influx of milk, also red, and tender to the touch, and pain will probably be felt in the arm-pits. There may be also chilliness and some degree of fever. Now a condition of this kind may by a little care and management usually be remedied in a day or two.

Treatment.—A purgative of castor-oil, rhubarb, or senna must be taken, and warm fomentations should be applied freely to the bosom. If the infant be not able to draw the breasts, they must be relieved by a friend's child, or drawn by the nurse.

Supposing, however, that the inflamed condition of the breasts has arisen from indented or irritable nipples, there will be more difficulty in affording relief to the patient. The fomentations must be applied more assiduously, and the nipples must if possible be drawn out by the breast-pump, or Maw's apparatus before alluded to, and the child immediately applied to them. Frictions of warm olive oil or camphor liniment must be made use of frequently with the hand, and the bosom must be supported by a soft handkerchief passed from the opposite shoulder, underneath the breast and arm of the corresponding side, and fastened behind the neck.

If the inflammation be superficial, extending merely to the skin and integuments, there will be little danger arising, and such measures as have already been recommended will usually put all to rights; but should the tension of the breasts be accompanied by hardness and a knotty feeling also, the hot wooden bowls before described should be applied continuously to them for three or four hours, and when removed, a couple of layers of soft linen rag or lint, wetted with warm water, should be applied to them under oil silk: a teaspoonful of the tincture of arnica should be added to each half-pint of the water used.

Unless it be almost certain that matter has formed in the breast, I have a great objection to the use of poultices, which by their bulk and weight are a source of annoyance and inconvenience to the patient. My own experience also leads me to disapprove of the application of leeches in cases of this description, having never witnessed any good results follow their use in the prevention of milk abscess; on the contrary, I have known the abstraction of blood by leeches followed by extreme debility, irritative fever, and a very prolonged recovery.

Belladonna has been very strongly recommended for the prevention of milk abscess, and is no doubt highly serviceable in some cases. The following is the formula:—Extract of belladonna, 3 parts; and glycerine, 1 part. These are to be well mixed, and a portion, about the size of a filbert-nut, applied to the whole breast, with the exception of the nipple, twice a day. Belladonna should not, however, be used except under the direction of a medical man.

Abscess of the Breast.

In the preceding remarks it has been my earnest desire, by pointing out a plain and simple plan of treatment on the first advent of inflammation of the breast, to avert, if possible, the evil so much dreaded alike by doctor and patient—milk abscess; and I would here again impress on every young mother particularly, the importance of making her medical attendant acquainted with the very first symptoms of uneasiness, discomfort, or pain in the bosom. Although an efficient nurse may do much to give relief, the experienced medical man will understand far better the complications which arise from diversities *of constitution,* temperament, and local peculiarities,

and will direct his treatment accordingly. The following conversation between a distinguished American obstetrical physician and his patient, the tenth day after her confinement, will, I think, give force to my observations:—

"I am sorry to find you have been obliged to send for me, my dear Mrs. ——. I left you so well the day before yesterday, that, being much occupied, I thought I might lay aside my daily habit of coming to make you a visit in the morning. You know that I have had nothing else to do here since the birth of the infant. You were cheerful and happy when I last saw you; but now you look downcast and apparently sick. What can be the matter with you?"

"I have been quite sick, doctor, since yesterday afternoon."

"What, quite sick, and I not notified of it? Did you not say, did not this nurse say, did not Mr. B—— say, that if at any time in the whole course of the month you should be seized with any symptoms whatever, great or small, I should immediately receive a note informing me of it? Here, now, you've been sick almost twenty hours before I am made aware of it. Was this just to me? Was it just to yourself and your friends? However, I suppose it will always be so with everybody, since I have found it so with everybody for thirty-seven years."

"But, the doctor will please to observe that we did not like to trouble him. It was thought that the indisposition might readily pass away; and, indeed, I do feel a little better now than I have done in the night, or the early part of the morning."

"But what has been the matter with you? What have you complained of since yesterday afternoon?"

"I was taken with a chill, sir, at two o'clock, and I could not get warm for near two hours. This was

accompanied and followed with pain in the head, in the back of the neck, and in the limbs, that I could hardly endure; and I became so warm that I was obliged to throw off some of the coverings."

"Have you any pain in the stomach or bowels?"

"No, sir; not the least."

"Cough—I wish to know whether, if you cough, it will give you any pain in the lower part of the bowels. There! that will do. Does that hurt you?"

"No, sir, it does not."

"Make a great inspiration of air for me. Breathe hard. Any pain?"

"Not the least, sir."

"Which of the breasts hurts you?—the right or the left one?"

"My breast does not hurt me, doctor."

"Yes, it does."

"No, doctor!"

"But I am sure that it does; and that the cause of your chill, and of the heat that you have had all night, and that you still have—for your pulse is quick—is seated in one or more of the branches of the milk tubes. Will you let me touch the breast?"

"Yes, sir."

"There, now; it hurts you at this point, does it not?"

"Oh! Oh, yes, sir! yes, sir, very much indeed! Why I did not know that I had anything the matter with the breast!"

"But I did, you see."

"Yes, I see that you did. It is very strange that you should know that I had a pain, when I myself didn't know that I had it!"

"No, it is not at all strange; it is very easy to know that; because it is very easy to perceive, in the rate of your pulse; your breathing; your heart; in

the tint of your complexion; in your physiognomical expression; in your gesture and attitude; in the absence of pain in the abdomen; in the state of your intellect, evinced by your answers to my questions, that nothing else could be the matter with you. In fact, as soon as you said, 'I had a chill yesterday afternoon,' I knew that you had an attack of what the ladies and nurses call 'the weed.' You have got a milk fever, my dear lady."

Signs of an Abscess, and Treatment.

The indications that matter has formed in the breasts, are severe throbbing or shooting pain, a red, shining appearance of a portion of the bosom, with probably some spot softer than the rest, and a sense of fluctuation underneath; there will be also chills, alternating with feverish attacks.

When from the persistence of these symptoms there can no longer be any doubt of the existence of matter, and the abscess has approached sufficiently near the surface, it should be lanced; an opening for the exit of the matter, made sufficiently early, may prevent the matter burrowing underneath the tissues, and damaging the breast. The part should then be freely fomented with hot water, and linseed-meal poultices, large enough to cover the entire bosom, applied every four or five hours. The breast should also be supported by a handkerchief or soft napkin. If the abscess be confined to one breast, the child should be still put to the other as usual, and the affected breast must, as soon as the mother can bear the operation, be carefully drawn.

When an abscess has thoroughly discharged its contents, and the opening has healed, there will be generally a little lump or feeling of a hard substance

left. The poultices may now be discontinued, and a warm soap and camphor liniment applied with the hand, or a soft piece of flannel three or four times a day; the part must be protected from the cold by flannel or sheet wadding. When the little lump does not readily disperse, the breast should be bathed freely twice a day with a strong solution of bay salt in tepid water.

By adopting these means, the milk will frequently return, and the child must then be put to the breast as usual. Sometimes, owing to the extent of the abscess and the length of time occupied in the cure, the child must necessarily be weaned; in such cases however we hope, by judicious management, that the breast may become fitted for nursing at a future period if called upon to resume its function.

CASE.—A lady, suckling her third child, suffered from inflammation of the breast followed by abscess; the glands in the arm-pit became inflamed and swollen, the system suffered from constitutional irritation and fever, and at length sinuses formed in the breast. So much was the general health of the patient undermined by the pain and suffering induced by the severity of the attack, that change of air was considered necessary. From the damaged state of the tissues and the flowing of the milk through the openings formed in the abscess, the case proved most obstinate and protracted, and it was many weeks before the cure could be effected.

The treatment consisted in the frequent drawing of the breast, the application of linseed-meal poultices, painting the surface with the tincture of iodine, and the internal employment of the iodide of potash with the infusion of chirata. When the sinuses had healed, a strong solution of bay-salt in water *was applied at night* and morning. The breast got

perfectly well, and at a subsequent confinement this lady was able to nurse her child with ease and comfort.

I have related this case for the encouragement of those who may be so unfortunate as to suffer from milk-abscess, showing that however serious and unfavourable the case may appear—"the cloud has a silver lining"—the patient must not despair of the cure being effected, nor of being able at some future period to suckle her infant, should circumstances require her to do so.

Before concluding this chapter, I would remark that in cases where bay-salt was formerly recommended, another preparation, Tidman's sea-salt, is now very generally preferred. This substance, as its name implies, contains all the properties of sea-salt, being, in fact, obtained by the evaporation of sea-water, and from my own experience I can speak very highly of its qualities.

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CHAPTER V.

ON THE MORAL AND HYGIENIC MANAGEMENT OF CHILDREN.

Preliminary Remarks.

In infancy the external faculties are the same as in maturer years, though less developed. The healthy infant sees, hears, tastes, smells, and feels, and at a very early period some traces of mental activity can be detected. The maternal smile is reciprocated—sympathy and emotion are coming into exercise.

Since the external senses are the inlets to the mind, we must be careful not to over-exercise or unduly stimulate these faculties; the effects of such over-excitement may become apparent in after years. The eyes should not be exposed to too sudden or strong a light: the sun's rays or bright candle-light should be guarded against. The ears should not be assailed by harsh or sudden sounds; even musical sounds, when unduly applied, have been known to cause irreparable mischief to the child. I knew a young professor of music who, finding that his baby was delighted with the sounds of music, was in the habit of playing tunes and exciting airs on the violin, till the child, a fine handsome boy of about six months, was thrown almost into an ecstasy. On one of these occasions I happened to be present, and cautioned the father of the serious effects which might follow such over-excitement of the child's *brain, but the* mischief was already done—this poor

child turned out an idiot. The brothers and sisters, five or six in number, were free from any tendency of the kind, the parents were particularly healthy, and I could not discover that any relative of either had suffered from this distressing malady.

Fear is another powerful excitant of the brain, and wicked must that person be who would willingly scare a young child. The old saying, "he was frightened out of his wits," contains too much of truth.

It is not, however, intended in this little work to dilate on the mental condition of the child—that would embrace too wide a field, and would be more fitting the psychologist; it will be attempted merely to show the effects of moral training, and a due attention to the laws which regulate health.

The Influence of the Mother on the Feelings and Affections of the Child.

How sweet the privilege! how great the responsibility of the mother! Her influence is unceasing, and her control during the infancy and early years of her child should be unbounded. How important that the maternal sway be exercised with forbearance, good temper, and general consistency of conduct, for the tender babe soon notices every movement, every expression of the mother's countenance. The earliest impressions are received from the mother, and these are undoubtedly the strongest; the temper and disposition are moulded to a considerable extent by the management during the very early months; it is no exaggeration to say that education begins with the hour of birth.

The training of the infant must, from the commencement, be guided by the principles of morality and religion, and since the feelings and affections pre-

cede the reasoning faculties, they must be first cultivated. The baby of a few months old notices and understands far more than we are aware of—soft words and a cheerful look encourage, a lullaby song soothes, an angry expression causes alarm; the mother should therefore suppress any irritable feeling or unguarded word in the presence of her child. A lively and contented nurse will generally make a bright and cheerful child.

Mildness and kindness of manner must however be blended with firmness and decision, and the child must by degrees be taught to know that the control and authority of the mother are to be regarded as positive, absolute. The mother who would wisely manage her child, must think and act for him, just as for one helpless and blind. She must not consult his wayward inclinations and likings; that would indeed be a misguided kindness. Example and imitation will do a great deal. When the mother bends in prayer the child should be made to clasp its hands, and before the tongue can give utterance to speech, there will be a consciousness of, and a participation in prayer. I would fain add that the first lispings of the infant should be in praise of its Maker.

"Hail, mother, hail! to thee thy God has given
A babe to train, for virtue, use, and heaven!"

Education of the Habits.

Dr. Paley has remarked that "the mass of mankind act more from habit than reflection." Now if this be the case in mature age, how much more so will it be with the little being whose thinking faculties are so partially developed. The infant may be trained to good or bad habits; and it is surprising that those who have the management of children are not more alive to the fact, and aware to how great an extent

they influence the character and disposition as well as the constitution of the child. The results of mismanagement will soon be too obvious; the child indulged in every whim and fancy soon ceases to be under control, he knows that by his cries and importunities he can obtain all that he wants, and instead of a pleasure and a privilege to attend to such a child, it becomes a most troublesome and disagreeable task.

Rocking to Sleep.

It might seem unnecessary to advert to the old-fashioned custom of rocking children to sleep in the cradle; for happily this relique of the olden time, the rocking-cradle, is unknown in a modern nursery; but the habit of sending a child to sleep by patting or caresses when placed in bed, is almost equally undesirable, for supposing the attention of the nurse to be diverted for the moment to some other occupation, the child cries or screams until some one comes and sends it to sleep; and should the child awake in the night, the nurse must attend to it immediately and repeat the same soothing process.

If the child be in health, it should be placed in the bassinette or cot quite awake, and it will soon become accustomed to the plan, and fall asleep without further trouble. A bad habit will thus be avoided, and prove alike advantageous to both child and nurse.

Regularity in the Daily Habits.

Children at a very early age may be taught to relieve themselves at accustomed periods, and they should be taken up for that purpose at regular intervals during the day. This is important, more particularly when the use of the napkins is discontinued; the child will have much more freedom, and feel far more comfortable without these appendages.

and they may generally be dispensed with at the end of three months, when the child is short-coated.

Sucking the Fingers.

Infants should not be allowed to keep their fingers in their mouth, for unless their little nails are kept extremely short, they are apt to excoriate and abrade the tender membrane of the mouth; and there is a probability that they may acquire a habit of sucking the fingers, so difficult to get rid of afterwards. I have seen children five and six years of age wasting and paralysing their fingers from this disgusting practice.

Sleeping on the Back.

There is another habit which some children have of sleeping on the back; this should be prevented if possible, as it frequently gives rise to wetting the bed. If the bladder be rendered irritable, as it frequently is during teething, by a heated state of the child's water, lying on the back will most likely bring on incontinence of urine, and cause this accident to happen. Whenever therefore the child is observed in this position after being put to bed, the mother should gently place it on one side.

Giving Medicine.

In giving medicine to a child, never attempt to deceive him by saying that he is going to have something nice; on the contrary, if he be old enough to understand you, make him aware that it is medicine, and intended to do him good. If he will not take the dose prescribed, tell him that he must be deprived of some anticipated pleasure, or that he cannot have his next meal until he has complied with your wish. *If you deceive* him with regard to his medicine, he *will suspect you* of deception in other matters.

Cleanliness and Bathing.

A healthy condition of the skin is most important, affecting materially as it does the strength of the body and the tone of the system generally, and enabling the individual to resist more or less effectually the various morbific influences to which he may be exposed. The peculiar organization of the skin and the important functions assigned to this structure render it highly necessary that proper attention should be paid to cleanliness and bathing at all periods, and especially should this be insisted on in early childhood, and perseveringly carried out by the mother and nurse.

The young delicate infant, with a tender skin liable to be soiled and inflamed by contact with the evacuations, requires the free use of water, as well as the healthy and robust, though due precaution must be exercised as to the mode of its application. It is best to accustom the child at a very early period to the use of the bath, and there are very few who are averse to this mode of ablution when judiciously applied. I would not go so far as to say that a very delicate child should be daily subjected to the fatigue of submersion in water; in such a case washing the child in the lap of the nurse would be more proper; then every part of the body should be washed and wiped dry consecutively.

There seems to be a great objection on the part of some nurses to wash the head sufficiently; but the scurf which collects about the roots of the hair, and the eruptions which are apt to form on the scalp, render it necessary that the head should be very carefully cleansed once at least daily.

The temperature of the bath should be regulated by the constitution of the child and the season of

the year. The robust child can bear a lower temperature than one who is less strong. The bath should be from 70° to 76° in the summer, from 90° to 96° in the winter. The child should be soaped while in the water, and rubbed with a soft flannel or sponge. The operation need not last more than four or five minutes, and should be immediately followed by wiping with a fine soft towel and gentle friction of the skin, either with the hand or a piece of flannel. The fissures and folds of the body should then be powdered to protect the skin from the irritating action of the secretions.

Some children can bear the water of the bath quite cold, but they should not be allowed to remain immersed above a few seconds, or the shock to the system will be too great, and do harm.

Very few children object to the bath when properly regulated; in fact, under the management of a careful and cheerful nurse the majority will find in it a source of amusement and pleasure; and if the child be disposed to be playful and to run about after taking the bath, a little exercise in this way should be encouraged; the skin by exposure becomes invigorated, and the child experiences the additional advantage of an air-bath.

Clothing.

The clothing of children affects so materially their health and comfort as to claim our especial attention. In the construction of dress, warmth and protection are two important elements, and these we shall consider, first in reference to early infancy, and subsequently as relating to more advanced childhood.

The term swaddling or swathing as applied to infant dress has, we know, a very ancient origin. *St. Luke records* of our blessed Saviour, that "Mary

brought forth her first-born son and wrapped him in swaddling clothes." The very helpless condition and tender frame of the newly-born infant indicate that a wrapping or swathing form of dress is best suited to its requirements. A dress which can be easily and quickly adjusted without fatigue to the child, and that will afford protection from cold. The clothes should be so applied as to leave room for the free movements of the limbs and body; we must remember that the young infant requires space to breathe and grow.

The necessity of wearing a roller or binder during the first few months, for the purpose of securing the navel, is obvious. As soon as the newly-born child has been carefully washed and wiped dry, the navel string should be folded in a piece of soft linen rag, turned upwards, and safely secured by a flannel swath or binder passed round the child's abdomen. The navel string usually separates from five to ten days after birth; but the application of the binder should be continued for three or four months, and if there be any tendency to weakness or rupture at the navel, a small pad of linen rag should be worn at the part, so as to make additional pressure. The careful adjustment of the binder is in all cases of the utmost importance, and particularly so with delicate children.

The mode of dressing infants is better managed now than formerly. They are not swathed up so tightly; they are short-coated at a much earlier period, and the use of caps is very generally discontinued. Caps are apt to rub off the hair, besides making the child more susceptible of taking cold.

There are some of our continental neighbours, notwithstanding, who still adhere to the old practice of tightly swathing up their young infants. It is surprising how they exist during the early months,

their arms compressed to their sides, rolled up more like little mummies than living, breathing children. In the principal Lying-in Hospital in Paris, "La Maternité," this unnatural mode of swathing infants is still persisted in.

The child requires but little clothing during the first two or three weeks, as their weight is an incumbrance, and it is desirable to shorten the process of dressing as far as possible; the infant passes most of its time in the bed or bassinette. The only dress required is a fine long-cloth shirt, a flannel skirt, little woollen socks, and bed-gown. After the month a petticoat may be added, and a robe substituted for the bed-gown. A three-cornered piece of flannel, with strings attached, should be worn over the napkins to secure them, instead of using pins. It is satisfactory that the clothes are not now worn nearly so long as formerly, as their weight must have been extremely inconvenient and oppressive to the infant.

At three months the child should be short-coated, except it be cold weather, and then the change of clothing should be delayed a month or two. I must here strongly advise every mother not to allow the use of pins* in dressing the child. Every article of clothing should be fastened by strings, loops, or buttons, or by tacking with needle and thread. This may be a little more trouble, but will secure the safety of the child. We can never be certain, when pins are used, that during the movements of the child some injury may not happen. Not only violent irritation and pain, but convulsions have been caused by a pin carelessly placed in the child's dress. Strings also may be too tightly applied. I remember, on one occasion, while vaccinating a number of children in my consulting-room, my attention was called to a

* *Nursery safety*-pins may be used without danger to the *child.*

fine little boy who was leaning his head back over his mother's lap, and snoring most vociferously. At first he was supposed to be merely asleep, but on observing him closely, I found his face becoming livid. His hat-strings compressed the vessels of the neck, and if these had not been loosened, the poor child would have very soon breathed his last.

The importance of Flannel as an Article of Clothing.

A great difference of opinion exists with regard to the use of flannel for young children. In a variable climate like our own, it is most important that the clothing should be properly regulated, and adapted to the varying circumstances of season and locality, as well as individual peculiarities of constitution. One principal object of clothing, as before remarked, is to protect the skin from cold. We most of us know too well the pernicious results which may arise from a chill, and the tender skin of the young child is extremely sensitive to external impressions, whether of one extreme or the other, particularly if the transition of temperature be sudden.

For my own part I strongly recommend the use of flannel; a waistcoat of this material should be worn next the body during the winter months. The flannel should be of a fine quality, lest it prove a source of irritation to the skin. Woollen socks also should be worn, and when the child is old enough to walk out in the open air, long worsted gaiters to envelope the legs completely are a most desirable addition to the dress. It is lamentable to witness young children toddling along with bare, blue legs on a cold, frosty day; and worse, too, if these poor, inadequately-clad children are consigned to the tender mercies of a young nurse-maid, who is allowed to propel them along the footpath in a perambulator.

Flannel not only affords warmth, but by its poro-

sity allows a free action of the skin and evaporation of the perspiration, so essential to the maintenance of health. Delicate children should not leave off their flannel during the summer; but the strong and robust may safely do so, and ought to discontinue its use, if it seem oppressive and excite undue action of the skin. We must, however, while anxious to secure warmth, be careful to guard against excessive clothing, or we may induce relaxation of the system and enervation of the child's strength: lightness as well as warmth of material must be combined as far as possible in the construction of dress. The underclothing of children should be very frequently changed.

Before leaving the subject of dress, I would remark that the neck and arms of young children should be protected as well as the rest of the body. The upper part of the chest, which is often the least covered, is the most susceptible of the influences of cold, and a damp state of atmosphere. The foundation of many serious chest complaints is laid in childhood through inattention to their clothing in this particular. I am sure that every considerate mother will willingly forego the pleasure of seeing a low dress and pretty neck and shoulders, when she is aware that this mode of clothing her child is likely to prove injurious to health.

Exercise.

Exercise and pure air are most indispensable to the health of children. In the summer months the infant may be taken out of doors at the end of the fortnight. The air and gentle exercise in the nurse's arms will have a most soothing and invigorating effect. The out-door exercise should not occupy *more than* twenty minutes at first, but may be *gradually* prolonged. It would, however, be very

unwise to send out a young babe on a damp or foggy day, or during the prevalence of easterly winds.

In winter and spring much more caution is required in exposing infants to the open air; at this early age they are much more susceptible of cold, and to the effects of sudden transitions of temperature. It is most important that when the child is taken out of doors, a sheltered situation should be selected, and the draughts and corners of the streets avoided. The little tender infant soon takes a chill, and croup, bronchitis, and other affections of the lungs are oftentimes the unhappy results of inconsiderate and rash exposure of young children during cold or unseasonable weather.

Most young children enjoy being out of doors; even at three or four months they begin to evince pleasure when the little preparations are being made for the morning airing.

When the season does not permit of the child being taken out of doors, the nurse should substitute in-door exercise in a large suitable airy apartment. In the first few weeks the child should be carried in a horizontal position; the soft bones and tender muscles cannot support the weight of the body. At two months the child may be carried in a semi-reclining position, and at the fourth may be allowed to sit up a little in the nurse's arms. At this period the child should be placed occasionally on its back, on a mattress or soft carpet, and allowed to stretch its limbs and kick about—a kind of passive exercise the child will much enjoy. A good cheerful active nurse is especially required at this time, who thinks it no trouble to be constantly in attendance on her little charge. When the child is a little older, it may be allowed to crawl about, and thus bring the muscles into more active exercise.

I would here caution young mothers not to be too

anxious to see their children begin to walk. Although a robust healthy child may be able to go alone at ten or twelve months, there are many others, less strong, who will not be able to do so till a much later period. A child knows best its own strength, and will by degrees get confidence. After learning to crawl, it will by-and-by attempt to support itself by clinging to the leg of a chair or table. With a little support now the child will soon manage to walk from chair to chair. Any artificial mode of teaching children to walk is undesirable. It will be well to caution the nurse also, in her efforts to teach the child to walk, that when one arm is upheld too long the child's spine is apt to get twisted—either hand should be taken in turn; and it must be borne in mind that if the child be over-fatigued by this exercise, the legs, unable to support the weight of the body, often become crooked; this will especially be the case with rickety children, whose bones are soft and muscles weak and flabby.

Until the child is sufficiently strong to walk firmly on its legs, it should be carried out of doors in the nurse's arms, and if the season of the year be favourable, it cannot be too much in the open air; in fact young children should almost live out of doors. The nurse should accustom herself to support the child on either arm, or the child will acquire a habit of leaning to one side, or by constantly turning the eyes in one direction, may contract a habit of squinting.

Perambulator.

Where there are two or three children requiring exercise at the same time, and neither of them able to walk any distance, the labours of the nurse will be much assisted by the infant perambulator; but *this convenient* little carriage, oftentimes so indis*criminately* resorted to, must not be made use of

without certain restrictions. Children should be allowed to ride in the perambulator during fine and mild weather only, and when the sun is powerful, they should be carefully protected from its rays by a shade. During the winter months the perambulator should be put away altogether. The evils arising from the abuse of this conveyance have been so forcibly depicted in that admirable journal *The Lancet*, that I cannot forbear transcribing some passages here. "It is undoubtedly far more convenient for the mother or nurse to propel a helpless child before her (when no one can accuse her of not looking after her charge) than to toil with it during the daily walk, or subdue her pace to accord with its feeble steps. But the change cannot always be pleasant to the infant, nor beneficial to its health. There is not that sustained warmth of the mother's body, for which no artificial heat is an efficient substitute. Children are far too frequently taken out in perambulators on cold, windy, or gloomy days, when their inactive and unprotected position renders them peculiarly liable to suffer from the effects of exposure. Every one must have observed such unfortunate little victims being driven along our streets, lolling their heads in hopeless resignation, whilst their little blue cheeks and watery eyes and pinched faces give presage of the impending catarrh, bronchitis, or pneumonia, the true cause of which the hastily summoned doctor will scarcely fail to comprehend when he notices the perambulator in the hall.

"Moreover, these conveyances are often unnecessarily used for children fully able to walk, and who should be taught thus to exercise their limbs."

Donkey-riding and Rocking-horse.

A very serviceable kind of exercise in fine weather *is donkey*-riding with panniers; these should be made

of wicker-work or some light material, and sufficiently deep and ample that the children may change their position, standing or sitting at pleasure. This mode of giving young children air and exercise is especially adapted for the country; with the aid of a boy and nurse three or four children may spend some hours in the open air daily.

In wet weather the rocking-horse will afford much amusement, and prove a very good in-door exercise.

Sleep and Rest.

The periods most suited for the repose and sleep of young children should be properly regulated. During the first few weeks of existence the infant is nearly always asleep. In utter dependence on those around, the unconscious little being awakes to take nourishment, and then reposes again. Digestion, nutrition, respiration, and all the various bodily functions rapidly succeed each other; with new material fresh strength is acquired, and in a few short months, with proper management, the tender nursling becomes the strong, robust, and active child.

During the lying-in month, if the weather be cold, the child should be placed to sleep in the mother's bed; the maternal warmth will be necessary to sustain and support the feeble circulation of the infant. But in summer the child may very soon be put to sleep in the bassinette, which can be placed by the bedside of the mother. There are some mothers who cannot sleep with the baby in their bed, through fear of over-heating or suffocating the child from its slipping under the clothes: in such cases the bassinette or cot must be had recourse to.

Cradles and Bassinettes.

Cradles are but little used in the present day, and they have no doubt been judiciously excluded from the nursery. The rocking motion, when carried to excess, disturbs the circulation, interferes with digestion, and probably excites into action some infantile disorders of the brain; the bassinette is therefore infinitely preferable to the cradle.

Children, during the first twelve months, should lie upon a feather-bed; their tender limbs and body require warmth and a soft material to lie upon. As soon as possible after this period, the feather-bed should be exchanged for a horse-hair mattress. It is advisable also to have a pillow of the same material. Children, while teething, are apt to become excessively heated about the head, and soft pillows should be avoided; for the same reason it is better to habituate the child to sleep without a cap.

Care must be taken that the cot or bassinette be placed in a situation where it will not be exposed to any draught. Children should be accustomed to be placed in bed on either side, as change of position is best for them. Sleeping on the back is very apt to occasion dreaming and starting, and sometimes irritation and weakness of the bladder will arise from the same cause. When the mother finds her child sleeping on its back, she should change the position to one side, even at the risk of waking up the child.

In the early months the child should be placed in its bed to rest twice in the day. The periods most suitable will probably be from eleven to one in the morning, and from three to four in the afternoon. As the child becomes stronger the afternoon rest may be omitted, but the sleep in the morning may be continued with advantage up to two and a half or three

years of age. When the child is placed to sleep, the light should be subdued—the apartment kept perfectly quiet—no bed-curtains used excepting around the head—the clothes not drawn too much over the face. Should the child seem indisposed to go to sleep, still the repose will be beneficial, and it is better for young children to get the habit of lying down at some regular periods of the day, even though awake.

Residence.

The choice of a house, or the selection even of a locality, very frequently do not depend upon ourselves, but upon the force of circumstances. I shall, however, introduce a hint or two here, which may be useful to those who have an opportunity of making their own selection.

The salubrity of a house depends very especially on the condition of the soil in the neighbourhood. Whether it be town or country, a clay soil should be avoided, as the deeper the substratum of clay the more difficult and imperfect will be the drainage. In the country more particularly we generally observe a foggy and damp state of atmosphere associated with a soil of this nature. After heavy rains the water is seen to stand upon the surface, and we usually observe rushes growing in the locality. It is a mistaken notion to imagine that because the situation is elevated the soil is free from moisture; the hill top may be more damp than the vale below. The best substratum is gravel, which forms a natural filter; from a soil of this nature water and moisture soon disappear.

On taking a house the drainage should be particularly inquired into; all water-courses should be trapped to prevent the return of noxious gases into *the apartments.* Any deleterious gas emanating from

the lower or basement story will rise upwards, and may prove quite as injurious to the inmates of the upper rooms as to those in the lower part of the house.

On making choice of a residence in the country there are several points to be observed. We should avoid the close vicinity of tall trees, and anything likely to encourage a damp state of atmosphere. Standing water, as large ponds or lakes, are apt during the autumn to generate malaria, and their near proximity should be avoided. Running streams are less likely to be injurious; but the rivers and water-courses in large towns are too often contaminated by the refuse and drainage of the adjacent houses, and may thus prove detrimental to health. The immediate neighbourhood of large factories is also objectionable, unless the chimneys are made to consume their own smoke.

Nursery.

The rooms selected for the nursery should be sufficiently lofty, spacious, and well ventilated. It is impossible that children can thrive without pure air, and light is almost as necessary for the promotion of health and growth as a pure atmosphere. For this reason the upper storeys of a house are preferable to the lower rooms; they should have a cheerful look-out, and a south or western aspect. When it can be managed, the day and night apartments should so communicate with each other that the nurse can easily overlook her charge. Each of the rooms should contain a fireplace, furnished with a high wire guard. The windows should open from the top as well as bottom, and the opening below should be protected by iron bars. Venetian or thick rolling blinds should be appended to the windows, and used when neces-

sary to exclude excessive heat or light. The floor should be carpeted over the centre, and so fastened down as readily to admit of removal, and the frequent cleansing of the boards; but the floor should not be scoured too often in damp weather.

The sleeping-room should be provided, if possible, with a separate cot for each child, and the sides of the cot should be constructed of open-work, cane or zinc are preferable; the old boarded cots are too much closed in, and prevent the free access of air to the child. The day-nursery should contain no more furniture than is absolutely required, that the younger children, when prevented going out of doors, may have free space for exercise.

The Injurious Effects of Green Papers.

In papering the rooms green papers should be avoided, as they are most of them coloured with the arsenite of copper (Scheele's green), and although agreeable to the eye, are known to be extremely injurious to the health. A little ammonia or strong sal volatile applied to a paper of this description, causes a blue stain, and a portion of the paper when burnt will emit a smell resembling garlic.

The deterioration of health arising from the use of papers containing arsenic, is sometimes slow and insidious, at others more marked and rapid; and some well authenticated cases of fatal poisoning have been recorded, as the result of constantly breathing the air of an apartment furnished with such paper. Some persons who have slept for a night only in a room of this description, complain in the morning of headache, nausea, dryness of the mouth and throat, and cough. I would strongly recommend that when *green papers are found* in use, more especially in bed-

rooms, they be at once removed and replaced by others of an innocuous quality.

Young children are observant, and their minds as well as their fingers are ever busy. The walls of the nursery should be furnished with attractive and amusing pictures, and these may be made to convey some moral instruction.

A thermometer should be kept for the purpose of regulating the bath and the air of the apartments; 55° is a very good temperature for the sleeping room.

Servants.

The importance of selecting a nurse properly qualified to take the charge of children cannot be overestimated. She should be of good moral character, for children in their earlier years pass most of their time in the nursery, and are very much under the control and influence of the servants to whose care they are entrusted. A nurse should be kind and gentle in manner, and cheerful and obliging in disposition. The tone of voice and expression of countenance are noticed by children, and any peculiarity or defect of speech or person in the nurse should be avoided.

She should rise early, throw open the beds immediately on the children leaving them, and in clear, dry weather open the windows as early as possible, so as thoroughly to ventilate the room. A nurse should be particularly cleanly in her habits and person, also active and methodical about her work. Children are great imitators, and imbibe the habits of those around them. They copy what they see, and repeat what they hear.

It is essential also that the other servants of the house should be well conducted, and orderly in their general habits. Children in the absence of their

parents are sometimes thrown much into contact with servants, and their influence over them is not, I believe, sufficiently understood or estimated.

Let it be remembered that, according to the management and the training of the child, so will he become, in all probability, in after years, happy or miserable—a blessing or a bane to those within the sphere of his influence.

> "A pebble in the streamlet scant
> Hath turned the course of many a river;
> A dew-drop on the baby plant
> Has warped the giant oak for ever."

CHAPTER VI.

ON TEETHING.

The Period of Cutting the Teeth.

In early infancy there are no teeth visible, they are not necessary; they would, in fact, encumber the child and prove inconvenient to the mother. The nourishment taken at this period requires no mastication, and the mother's milk is best suited to the delicate digestive organs of the infant.

As growth and strength increase, and as the teeth and bony structures generally become progressively developed, the child will require food of a more varied character and consistent material.

The cutting of the teeth is a process of considerable importance, and always looked forward to by the mother with much interest. The changes which take place, and the various symptoms which manifest themselves in the child's constitution at this period, *will necessitate* the most vigilant care on the part of

the mother, and oftentimes the skilful superintendence of the medical man will be needed.

Order of Development.

Before describing the symptoms of teething, it will be better to state briefly the order in which the teeth are developed. The first set are termed temporary or milk teeth, in contradistinction to the permanent or adult teeth. The rudiments of both sets of teeth are contained at birth in cells or sockets of either jaw.

The Milk or Temporary Teeth

Are twenty in number, and begin to show themselves at about the sixth month; they are successively developed, and the process is usually completed by the time the child is two or two and a half years old; so that the whole time occupied in cutting the primary or milk teeth is from a year and a half to two years. The order in which they make their appearance is as follows:—The two middle incisors, or cutting teeth of the lower jaw; these are shortly followed by the corresponding teeth of the upper jaw. After a few weeks these are succeeded by the lateral incisors, first of the lower and then of the upper jaw. About the twelfth or fourteenth month, the anterior or small grinding teeth of the lower jaw appear, and usually about the same time those of the upper. Shortly after the canine, pointed, or eye teeth, as they are termed, show themselves; and lastly, about the end of the second year, or second year and a half, the back grinders make their appearance.

The Permanent Teeth.

Between the sixth and seventh year the milk teeth begin to fall out, and the permanent teeth, thirty-

two in number, appear in the following order:—First, the middle incisors of the lower jaw; then the middle incisors of the upper; soon after, the outer incisors of the lower jaw, and about the same time the anterior grinders; these are followed by the lateral incisors of the upper jaw. The anterior bicuspids or small grinders appear about the ninth year, the posterior about the tenth, the cuspid or eye teeth, and the middle grinders about the twelfth or fourteenth, and lastly, the back grinders or wisdom teeth as they are termed, between the ages of sixteen and twenty-five.

Process of Teething.

Having given some general idea of the order in which the teeth are developed, although there are numerous deviations from the usual course, some children cutting their teeth very much earlier than others, I shall proceed with the subject.

The process of teething consist of two stages; during the first, the capsule of the tooth swells within its socket, and stretches the adjacent parts; and in the second, the tooth lengthens, pushes upwards, and cuts through the gum. The first stage may be painless, or nearly so, or attended by great irritation of the nervous system, and we are sometimes surprised that so many active symptoms are present, long before the teeth can be felt in the gums. The second stage of teething also is equally variable as to the amount of pain and irritation, and the teeth sometimes cut their way through the gums without any apparent difficulty.

Symptoms.

The general symptoms of teething are as follows:—*At the* commencement there are indications of

irritation in the mouth, from which the saliva flows in considerable quantities. There is some functional disturbance; the child seems uneasy, frets or cries, and is with difficulty amused. The cheeks become flushed, the eyes red, the sleep disturbed, the appetite variable with frequent thirst. The gums begin to swell and become sensitive, and the child puts every thing to the mouth. During this time the bowels are usually relaxed, a condition which is rather beneficial than otherwise, and ought not to be checked unless excessive.

During the more advanced stage of teething, the gums become excessively hot, more swollen and painful, and the child is fearful of anything touching them. A whitish or dark red spot makes its appearance on the gums where the tooth is about to push through. The child becomes extremely restless, fidgety, and impossible to please. His constitution often suffers; he becomes feverish and the bowels are disordered. Happily, however, on the appearance of the teeth, these symptoms very soon pass away.

The teeth most easily cut are the front or incisors, the molar or double are sometimes more troublesome, but the eye teeth in making their way through the gum usually occasion the most pain.

Although it has been considered necessary to detail somewhat minutely the symptoms of teething, it must be remarked that the foregoing description is intended to apply particularly to cases of difficult dentition. There are many healthy, well-managed children who pass through this period with scarcely any appreciable signs of discomfort or inconvenience; the process itself is not therefore necessarily attended with danger. There is undoubtedly a greater degree of irritability in the system at this time, giving rise in nervous or excitable children to a greater or less

degree of constitutional disturbance, and the occurrence of any disease at this particular era must be looked on as more likely to prove serious.

Treatment of the Child during Teething.

The importance of a most scrupulous attention to the hygienic management of the child having been already insisted on in the preceding chapter, and certain rules having been laid down for the guidance of the mother, it will be unnecessary here to recapitulate them.

The child of healthy constitution, nourished entirely by the mother's breast, seldom requires much to be done in the way of treatment. The bowels must be watched, and if confined, a little castor-oil or fluid magnesia must be given occasionally; a slightly relaxed condition of the bowels is favourable. To relieve thirst, the breast should be given rather frequently, and if the gums become irritable, they should be rubbed frequently with the finger, anointed with a little honey or simple syrup; friction and pressure of the gums always seem to afford relief in the early stages of teething, hence the child is very apt to thrust its own fingers into its mouth, a habit oftentimes attended by inconvenience at the time, as well as unpleasant results at a subsequent period, and which we ought if possible to prevent.

It is a very good plan to suspend a ring of box-wood or india-rubber around the waist; the child can apply this to the mouth without any risk of injury to other parts of the face.

I would here remind the mother that nothing tends to soothe and allay the irritation of the system from teething more than good nursing and pure air. *The child should* be as much out of doors as possible

when the temperature and weather permit; and should the air be damp or too cold, then the child should be carried about in some well-ventilated apartment several hours during the day. The young infant while teething especially requires the whole of the nurse's attention, and must not be left even during its sleeping hours. The use of the bath also must be most regularly persisted in, and the surface of the body well rubbed with a soft flannel afterwards. The diet should be particularly attended to at this period; improper food, or food given in excess, will tend to increase the irritation produced by teething, and add materially to the child's distress.

When the head becomes unusually hot to the touch, the part should be kept cool by sponging occasionally with cold water, or by the application of spirit-lotion on soft linen rag or lint.

Lancing the Gums.

When there is swelling of the gums accompanied with extreme tenderness, nothing affords such immediate relief as scarifying the gum over the tooth with a lancet. We do not always lance the gums with the view of letting the tooth through, or with the expectation that the tooth will very speedily make its appearance. Our object in many cases is merely, by the abstraction of a small quantity of blood, to relieve the swollen and inflamed state of the gum, and this operation may be repeated at intervals. When the gums are carefully lanced there can be no harm arise from the operation; but as this part of the treatment ought to be entrusted to the professional attendant, I need not enter more fully into the subject.

Convulsions.

Of all the symptoms attendant upon difficult teeth-

ing, convulsions are the most serious and alarming, and inasmuch as they oftentimes occur suddenly, at a moment when least expected, and more usually in the absence of medical aid, I shall give some simple directions for their treatment, to be resorted to at the very onset of the attack.

Warm Bath.

As soon as warm water can be procured the child should be immersed in a bath up to the arm-pits. The water should be tolerably hot; at the same time the child's head should be sponged with cold water. If these means be not effectual, a slight douche of cold water in the face during the time the child is in the bath will sometimes suddenly put an end to the attack.

The child may be kept in the bath at a temperature of 98° from five to ten minutes, and when the return to consciousness is tardy after the child has been taken out of the bath, pieces of flannel wrung out of hot water, saturated with mustard, should be applied for a few minutes at a time to the nape of the child's neck and the calves of the legs.

Lancing the gums will oftentimes afford the most decided relief, and the application of a leech or two to the temples will sometimes be required; the use of such remedies, however, and the subsequent treatment, must be left to the discretion of the doctor. I need scarcely add that upon the promptitude with which the remedial measures are carried out will depend very much the alleviation of the symptoms and the ultimate recovery of the little patient. Any delay or neglect may tend to serious, if not fatal, consequences.

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